

May 30, 2008

Ms. Delores Brown
Chief, Office of Environmental Compliance
Department of Water Resources
P. O. Box 942836
Sacramento, CA 94236

VIA U.S. MAIL AND EMAIL TO delores@water.ca.gov

RE: Scoping Comments on the BDCP EIS/EIR

Dear Ms. Brown:

We are writing on behalf of the Natural Resources Defense Council, Defenders of Wildlife, Environmental Defense Fund, and The Bay Institute, and our hundreds of thousands of collective members and activists in California, to submit the following comments on the scope of the Environmental Impact Statement / Environmental Impact Report ("EIS/EIR") that is being prepared for the Bay Delta Conservation Plan ("BDCP"). We expect that analysis of these issues in the environmental review process for the BDCP will help lead the State and federal agencies to sustainably manage the CVP and SWP in the Delta, consistent with the co-equal goals of ecosystem health and reliable water supplies established by the Delta Vision Blue Ribbon Task Force. These comments are supplementary to our joint comments to the National Marine Fisheries Service and U.S. Fish and Wildlife Service dated March 24, 2008, which are attached hereto as Exhibit A and incorporated by this reference.

We present the following recommendations for the environmental review process of the BDCP:

- The BDCP should utilize an ecosystem approach under the Natural Community Conservation Planning Act, Cal. Fish and Game Code §§ 2800 *et seq.* ("NCCPA");
- The BDCP should adopt measurable goals and objectives for the species (e.g., population abundance targets where possible) and habitats covered by the Plan, should include effective monitoring to determine progress towards these goals, and should adapt management of the CVP and SWP over time to meet these goals;
- The BDCP should include operational criteria to respond to a broad range of water years and other foreseeable circumstances, such as poor ocean conditions, in order to operate the CVP and SWP to meet conservation goals and ensure that the regulatory assurances provided in the Habitat Conservation Plan / Natural Community Conservation Plan ("HCP/NCCP") do not adversely affect the Delta environment;
- Consistent with the requirements of the federal Endangered Species Act, 16 U.S.C. §§ 1531 *et seq.* ("ESA"), California Endangered Species Act, Cal. Fish and Game Code §§ 2080 *et*

seq. ("CESA"), and NCCPA, the HCP/NCCP must minimize the take of covered species, must provide guaranteed funding for implementation over the life of the permits, must not jeopardize either the survival or recovery of listed species, and must be consistent with existing legal requirements applicable to the CVP and SWP;

- The EIS/EIR should analyze alternatives that would increase outflow and reduce exports as compared to current conditions, and analyze water conservation, efficiency, and additional demand reduction measures, as well as water recycling, groundwater and conjunctive use programs, urban stormwater capture and other tools to achieve the BDCP's water supply reliability goal;
- The baseline for analysis in the EIS/EIR must be based on the existing operational and legal constraints for the CVP and SWP;
- The EIS/EIR must analyze the BDCP's impacts, with particular focus on: (1) global climate change; (2) water quality, including salinity, toxic hot spots, pesticides, mercury, and other pollutants; (3) biological resources, including all species that may be impacted by the CVP and SWP, as well as upland habitats that may be affected; and (4) cumulative impacts; and the approved HCP/NCCP must minimize the Projects' environmental impacts to a less than significant level if feasible mitigation measures exist;
- The EIS/EIR must adequately analyze the effectiveness of proposed mitigation and conservation measures over the term of the BDCP;
- The EIS/EIR must analyze consistency with and potential impacts on the Delta Vision "vision" document and strategic plan;
- The EIS/EIR should consider broadening the Project Area and scope to include all parts of the CVP and SWP, including reservoirs upstream of the Delta, as well as other activities that impact covered species;
- The EIS/EIR should analyze the economic costs and benefits of water conservation and efficiency improvements to meet water supply needs, as well as identifying reasonable sources of funding to implement the BDCP; and
- The scoping and comment period for the EIS/EIR should be reopened upon completion of the BDCP conservation strategy and adoption of the Delta Vision Strategic Plan.

On the pages that follow, we address these issues in greater depth.

I. The BDCP Must Utilize the NCCPA, Rather Than an Incidental Take Permit under CESA, to Ensure Long-Term Conservation.

The BDCP must utilize the ecosystem approach of the NCCPA, rather than relying on an incidental take permit under CESA, to ensure that the plan will provide long-term conservation in the Delta. The March 17, 2008 Notice of Preparation for the BDCP EIS/EIR ("NOP") reflects uncertainty as to whether a Natural Community Conservation Plan under the NCCPA, or an incidental take permit under CESA, will be utilized to comply with State law requirements. The NCCPA was designed for multi-species conservation planning, with an emphasis on habitat protection and restoration, as well as adaptive management, to meet the Act's goals. As discussed further below in part IV(C) of this letter, restoration of species and habitats is a key goal of the NCCPA, Fish & Game Code § 2801(i), and the Act requires that implementation of the approved plan will help bring about the recovery of listed species and prevent additional

listings. See Cal. Fish & Game Code § 2805 (definition of "conserve"). Therefore, we strongly urge that the BDCP utilize the NCCPA because it will provide a more holistic and ecosystem-based approach to conserving and managing the Delta than a species-centric approach under CESA.

II. The BDCP Must Include Clear, Measureable Conservation Goals and Objectives, Monitor Progress towards those Goals, and Adapt Management to Meet these Goals.

The BDCP Points of Agreement and the NOP both emphasize the use of adaptive management to meet the BDCP's goals. We support the use of adaptive management in the BDCP, and we note that both the NCCPA and ESA require the use of adaptive management in an HCP/NCCP. Cal. Fish & Game Code § 2820(a)(2), (8), (b)(5), (f)(1)(G); see U.S. Fish and Wildlife Service, Habitat Conservation Plan Handbook (1996 and 2000 Addendum) ("HCP Handbook") at 3-24. The BDCP should include a robust adaptive management program, as well as effective monitoring to determine whether program goals are being achieved and how to adapt management to better achieve those goals. The BDCP must include an effective monitoring program, see Fish and Game Code § 2820(a)(7); 50 C.F.R. § 17.22(b)(1)(iii)(B), (b)(3), and the EIS/EIR should include some analysis of monitoring programs, including the levels of anticipated take of covered species required for effective monitoring.

However, in order for adaptive management to be effective, the HCP/NCCP must have clear, measurable biological goals and objectives. The BDCP's goals must be consistent with the co-equal goals of ecosystem health and water supplies established by the Delta Vision Blue Ribbon Task Force, but they must be far more specific than the general goals established in the NOP. The BDCP Points of Agreement recognizes that biological goals and objectives for each covered species should be adopted as part of the BDCP, but those goals have not yet been developed.

The BDCP should use measureable goals and objectives with respect to species and habitats, including all species covered by the plan and numerous species and habitat types affected by the plan, to ensure that the BDCP is achieving its conservation purpose. In particular, given the Delta species and habitat information available to the agencies, we believe that many species and habitat goals can be quantified, providing the best possible method of measurability. The Bay Institute, EDF, NRDC, Defenders of Wildlife, and Sierra Club California recently submitted joint comments to the Delta Vision Blue Ribbon Task Force which include ecosystem goals and targets that should be analyzed as potential goals for the BDCP. A copy of those comments are attached as Exhibit B and incorporated by this reference. Likewise, the ecosystem goals and objectives being developed by the CalFed Ecosystem Restoration Program and the Delta Vision Ecosystem Working Group may provide useful models in this regard. Lastly, the BDCP's biological goals and objectives should be consistent with the numeric recovery plan goals for salmon, smelt and other listed species that have been or are being prepared by the U.S. Fish and Wildlife Service and the National Marine Fisheries Service.

III. The BDCP Should Include Operational Criteria and Other Adaptive Management Measures to Respond to a Broad Range of Foreseeable Circumstances.

As noted above, we are encouraged that the BDCP will include adaptive management as part of the actions covered under the HCP. NOP at 5-6. As both the ESA and NCCPA recognize, adaptive management is a necessary element of an ecologically sustainable HCP/NCCP. Fish & Game Code § 2820(a)(2), (8), (b)(5), (f)(1)(G); HCP Handbook at 3-24; see 50 C.F.R. § 17.22(b)(2)(C), (b)(5). This is particularly true in the Delta, where water supplies and river flows vary on daily, seasonal, annual, and decadal timelines, where global climate change will change the Delta over time, and where ocean conditions and other causes outside the control of the BDCP can significantly affect covered species. As the CALFED science program has found, because of the inherent variability in the Delta ecosystem, "any management plan for the Delta must retain or restore flexibility and variability if key species, processes, and services are to be maintained." CALFED Science Program, *The State of Bay-Delta Science 2008, Summary for Policymakers and the Public* (2008) at 8. For instance, with respect to salmon, when ocean conditions are unfavorable, it is even more critical that we conserve the existing population by managing the CVP and SWP to maximize protection of salmon.

The NCCPA requires that the level of assurances provided by a NCCP be "commensurate with long-term conservation assurances and associated implementation measures pursuant to the approved plan." Fish & Game Code § 2820(f). A critical component in determining the level of assurances is "[t]he degree to which a thorough range of foreseeable circumstances are considered and provided for under the adaptive management program." *Id.* § 2820(f)(1)(8); see also 50 C.F.R. §§ 17.22(b)(5), 222.307(g) (regulatory assurances with respect to changed and unforeseen circumstances under the ESA). In addition, we note that California law requires suspension or revocation of the NCCP if take of the species under the plan will jeopardize the continued existence of the species. See Fish & Game Code § 2823. Thus all parties have an incentive in ensuring that the HCP/NCCP achieves its goals and avoids jeopardy to any listed species.

Therefore, we recommend that the EIS/EIR analyze operational criteria to respond to a range of water years and other foreseeable circumstances that will affect covered species, including: (1) poor ocean conditions that affect ocean-going covered species including salmon; (2) continuing toxic pollutants in the Delta, which affect numerous covered species; (3) increased levels of take from non-covered activities; (4) failure of one or more levees in the Delta; (5) changes to hatchery policies; (6) increased upstream diversions (7) further declines in the populations of listed species, (8) impacts from ongoing development in the Delta, and (9) the arrival or spread of invasive species. The operational criteria must alter the timing and/or amount of water exports through the CVP and SWP as necessary to protect covered species and the Delta ecosystem due to such foreseeable circumstances.

Defining operational criteria to respond to different water years and other foreseeable circumstances may be among the most important and difficult parts of the BDCP process. The criteria must be flexible enough to respond to such changed conditions, but also provide sufficient assurances that they will be implemented in a way that protects the Delta ecosystem. And there must be clear criteria for triggering and guiding the adaptive operating criteria.

As such, the flexibility required for the BDCP to succeed precludes any inflexible guarantees or complete regulatory assurances regarding water supplies and exports. As a matter of policy, California should not provide regulatory assurances for reliable water supplies that fail to contribute to the recovery of these species and of the entire ecosystem. Instead, the BDCP must retain sufficient flexibility to respond to changed conditions and continue to conserve and restore listed species and the health of the Delta ecosystem.

IV. Compliance with the Legal Requirements for an HCP/NCCP under the ESA, CESA, and NCCPA

The ESA, CESA, and NCCPA impose several legal requirements for the adoption of an HCP/NCCP. Four of these requirements are of particular importance here.

A. The HCP/NCCP Must Minimize and Fully Mitigate Take of Covered Species

First, under the ESA the HCP must minimize the take of covered species to the "maximum extent practicable." 16 U.S.C. § 1539(a)(2)(B)(ii). However, State law provides more protection to species listed under CESA. Under CESA, the take must be "minimized and fully mitigated," and under both CESA and the NCCPA, the measures required to minimize take must be roughly proportional to the amount of take. Fish & Game Code §§ 2081(b)(2), 2820(b)(3)(b), (b)(9). There is no question that the CVP and SWP are significant sources of mortality for most of the fish species proposed to be covered by the BDCP HCP/NCCP. See, e.g., *NRDC v. Kempthorne*, 506 F.Supp.2d 322 (E.D. Cal., 2007). Significantly reducing the Projects' take of these species below existing levels is critical to the survival and recovery of these species. Changes to the operations of the water projects that significantly reduce take of these species over the term of the permit must be implemented as part of the final approved HCP/NCCP.

B. The HCP/NCCP Must Provide Guaranteed Funding for Implementation Over the Life of the Permit.

Second, the HCP/NCCP must provide guaranteed funding for its implementation over the life of the permits. 16 U.S.C. § 1539(a)(2)(B)(iii); *National Wildlife Federation v. Babbitt*, 128 F.Supp.2d 1274 (E.D. Cal. 2000); Fish & Game Code § 2820(a)(10), (b)(3)(A), (b)(8); *id.* § 2081(b)(4). Reliance on general governmental revenues is not adequate, nor is it consistent with the "beneficiary pays" principle of the CALFED Record of Decision. Rather, in exchange for the regulatory assurances that the HCP/NCCP provides, the beneficiaries of the permit should fund the majority of the implementation of the plan. Elements of the program, such as conveyance facility, which are designed solely to provide water supply benefits and mitigation for water project operations, should be paid for entirely by water users. To the extent that market mechanisms similar to the Environmental Water Account are relied on as conservation measures in the BDCP, the plan must likewise identify and ensure adequate funding to implement such market mechanisms. The NCCP/HCP must identify the user fees or other funding mechanisms that will provide the funding required over the life of the permit.

C. The HCP/NCCP Must Ensure that the Projects do not Jeopardize the Existence or the Recovery of the Covered Species.

Third, the HCP/NCCP must not jeopardize either the survival or recovery of listed species. *See* 16 U.S.C. § 1539(a)(2)(B)(iv); Fish and Game Code §§ 2081(c), 2801(i), 2805, 2823; *NWF v. NMFS*, 481 F.3d 1224, 1235-36 (9th Cir. 2005), as modified, -- F.3d --, 2008 WL 1821470 (April 24, 2008) (jeopardy analysis must consider the effects of the proposed action "within the context of other human activities that impact the listed species," and "where existing conditions already jeopardize a species, an agency may not take action that deepens the jeopardy by causing additional harm."). Therefore, to be consistent with the ESA and CESA, the activities authorized under the HCP/NCCP cannot jeopardize the recovery of any listed species, and they should be consistent with the recovery plans for listed species, including the recovery plan for Chinook salmon that is currently being developed.¹ *See NWF v. NMFS*, 481 F.3d at 1236-38, as modified, -- F.3d --, 2008 WL 1821470 (April 24, 2008) (requiring determination that the project will not jeopardize recovery of the species in the section 7 consultation process).

Furthermore, in order to comply with the NCCPA, the approved plan must not only avoid jeopardy to the survival of the species, *see* Fish and Game Code § 2823, but it must also promote the recovery of covered species, and prevent the listing of other species. *Id.* §§ 2801(i), 2805 (definition of "conserve"). Therefore, in order to comply with both the ESA and the NCCPA, the approved HCP/NCCP must promote the recovery of these covered species.

Merely sustaining the existence of these species is insufficient as a matter of law under the ESA and the NCCPA, and it is fundamentally wrong from a public policy perspective. California must require the CVP and SWP to do their part to recover salmon, Delta smelt, and the other species that have been adversely affected by the State and federal water projects for so many years.

D. The Operations Authorized in the HCP/NCCP Must Comply with Other Legal Requirements Applicable to the SWP/CVP.

Finally, the actions authorized under the HCP/NCCP must be incidental to "the carrying out of an otherwise lawful activity." 16 U.S.C. § 1539(a)(1)(B); Fish and Game Code § 2081(b)(1); Cal. Code Regs., tit. 14, § 783.4(a)(1). Although this statutory language does not require the federal government to ensure that the Projects comply with existing law under the ESA, *Center for Biological Diversity v. U.S. Fish & Wildlife Service*, 450 F.3d 930, 941-943 (9th Cir. 2006), compliance with the incidental take statement "does not immunize its holder for violations of any other law, be it state or federal," *id.* at 942.² If the activities authorized by the HCP/NCCP are inconsistent with the existing statutory framework applicable to the CVP and SWP, the

¹ *See also* 40 C.F.R. § 1502.16(c); CEQA Guidelines § 15125(d),(e) (requiring analysis of whether the project complies with existing plans).

² In addition, the Ninth Circuit's analysis suggests that under CESA, the State must determine that the operations of the CVP and SWP are consistent with existing law. *Id.* at 941-43; *compare* Cal. Code Regs., tit. 14, § 783.4(a)(1) (requiring the DFG Director to determine that the taking is "incidental to an otherwise lawful activity") with 16 U.S.C. § 1539(a)(2)(B)(1) (requiring the Secretary to determine that "the taking will be incidental").

regulatory benefits of the BDCP will be illusive because the Projects' operations will violate existing law.

Operation of the CVP and SWP must be consistent with numerous environmental laws, including, but not limited to: the Central Valley Project Improvement Act (106 Stat. 4600 §§ 3401-3412 ("CVPIA")); Fish and Game Code sections 5901, 5930-31, 5937, and 6901-3; the Clean Water Act, 33 U.S.C. §§ 1251 *et seq.*, Porter-Cologne Water Quality Control Act, Cal. Water Code §§ 13000 *et seq.*, Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (2006), and Decision 1641; the public trust doctrine; and article 10, section 2 of the California Constitution (the reasonable use doctrine). In particular, State and federal law require the CVP and SWP to be managed to comply with the goal of doubling natural salmon populations. CVPIA § 3406(b)(1); Cal. Fish and Game Code § 6902. Recent language from DWR suggests that the BDCP process may seek to revise some existing legal requirements, particularly with respect to water quality.³ We strongly recommend that the EIS/EIR specifically analyze whether and to what extent the alternatives analyzed in the environmental review are consistent with these existing requirements, in particular the statutory policy of doubling anadromous fish populations under the CVPIA and State law, and that the final BDCP include tools and flexibility to be consistent with all of these existing legal requirements, including the goal of doubling anadromous fish populations.

V. **The EIS/EIR Must Analyze Increased Outflow / Reduced Export Alternatives Among the Reasonable Range of Alternatives, and Analyze Water Conservation, Efficiency, and Demand Reduction Measures, as well as Water Recycling and Conjunctive Use Programs, as Alternatives to Achieve (in part) the BDCP's Water Supply Reliability Goal.**

CEQA and NEPA both require that a reasonable range of alternatives to the proposed project be considered in the environmental review process, including a no project alternative. Cal. Pub. Res. Code §§ 21002, 21061, 21100; tit. 14, Cal. Code Regs. ("CEQA Guidelines") § 15126.6; 42 U.S.C. § 4332; 40 C.F.R. §§ 1502.14, 1508.25(b). The EIS/EIR should analyze the conveyance alternatives identified in the Notice of Preparation ("NOP"), however, alternative export regimes must also be analyzed.

In particular, the NOP identifies four alternative Delta conveyance strategies to be considered in the environmental review process, per the Governor's direction. See NOP at 3. However, in order to meet CEQA's requirements and to adequately inform decision-making, in addition to these alternative conveyance systems, the EIS/EIR must consider a reasonable range of outflow and export levels from the Delta, including several alternatives that increase the level of freshwater outflow and reduce the amount of water diverted and exported from the Delta, as compared with current conditions. See *Citizens of Goleta Valley v. Board of Supervisors*, 52 Cal.3d 553, 566 (1990) (EIR must consider a reasonable range of alternatives that offer substantial environmental benefits and may feasibly be accomplished).⁴

³ See note 2, *supra*, at 22, 34.

⁴ The Supreme Court's pending decision on review of the case of *In Re Bay Delta Programmatic EIR*, 133 Cal.App.4th 154 (2005), will provide additional guidance on this question. However, even assuming, *arguendo*, that

Increasing outflow and reducing exports from the Delta is likely to have significant environmental benefits, as increased exports over the past several years have coincided with significant declines in many fish species in the Delta, including Delta smelt, Sacramento Splittail, fall run Chinook salmon, and the Pelagic Organism Decline ("POD"). Court-ordered reductions in exports to protect Delta smelt, as well as scientific evidence relating to POD, demonstrate that increased outflow and reduced diversions likely are necessary to protect the Delta ecosystem and covered species.

Increased outflow and reduced exports likely are necessary to meet the ESA/CESA requirements of reducing take to the maximum extent practicable, as demonstrated by Judge Wanger's order to protect Delta smelt from jeopardy in *NRDC v. Kempthorne*, 506 F.Supp.2d 322 (E.D. Cal., 2007). Increasing freshwater outflow by reducing water diversions is also likely to be required to recover longfin smelt, which is a candidate for listing under State and federal law. In addition, to the extent that the Project causes potentially significant environmental impacts, including impacts on unlisted species or water quality impacts, increased outflow may be necessary to minimize and mitigate those impacts to a less than significant level, as required by CEQA. Finally, increased outflow resulting from reduced diversions and exports may also be necessary to comply with other legal requirements applicable to the operation of the CVP and SWP, including the Central Valley Project Improvement Act and section 6902 of the Fish and Game Code.

Moreover, increased outflow alternatives not only are consistent with the goals of the program as stated in the NOP, but they may be necessary to achieve these goals. The NOP establishes several goals of the program, including: the conservation and management of covered species; preserving, restoring, and enhancing natural habitats and ecosystems that support covered species; and restoring and protecting water supply, water quality, and ecosystem health. See NOP at 7. The Delta Vision Blue Ribbon Task Force's document, "Our Vision for the California Delta" released in December, 2007 also found that reduced diversions may be necessary to achieve the co-equal goals of ecosystem health and water supply.

With respect to increased outflow / reduced export alternatives analyzed in the EIS/EIR, demand reduction, water conservation, and water efficiency measures can be used to meet the water supply reliability goal of the BDCP. Likewise, water recycling, conjunctive use, urban stormwater capture, improved groundwater management, desalination, water transfers and similar programs can also provide additional water supply reliability. In addition, the BDCP should analyze land retirement, including land retirement on the west side of the San Joaquin Valley, as one measure to help achieve increased freshwater outflow and reduced exports/diversions. While land retirement must be carefully designed to avoid impacts to third parties, in the past Westlands Water District has advocated a land retirement program of up to 200,000 acres. Properly designed, land retirement can yield significant conservation benefits by making more water available for fish and wildlife. As more fully discussed in our March 24,

such a range of alternatives is not required as a matter of law by CEQA, such a range of alternatives is critical from a public policy perspective, and as noted above, may be necessary to meet other legal requirements applicable to the CVP and SWP.

2008 letter, the EIS/EIR should include an analysis of such measures to achieve the BDCP goal of water supply reliability. Delta diversions and exports should not be the only method of achieving water supply reliability analyzed in the BDCP.

The document should also analyze the water supply reliability benefits of reduced diversions. Such reductions could reduce ongoing conflicts, unexpected pumping curtailments and judicial involvement. Reduced pumping alternatives with a "buffer" to protect the ecosystem could prevent additional listings and recover listed species more rapidly. All of these factors suggest that a lower level of average diversions could be more reliable than a higher level. In fact, experience in the past several years demonstrates this. Unsustainably high levels of diversions led a federal judge to order significant pumping reductions. In short, recent record levels of pumping have proven to be unreliable. The document must clearly distinguish between increased average diversions and increased reliability. The two terms are not identical.

Therefore, we strongly encourage the EIS/EIR to analyze a range of alternative outflow and export levels, which includes several alternatives that increase outflow and reduce exports compared to existing levels, and analyze alternative measures to achieve water supply reliability. In addition, as stated in the NOP, the environmental document should analyze a range of operational alternatives to meet the Projects' goals. NOP at 2 ("The EIR/EIS will also analyze the impacts of alternative water operations and management actions to achieve conservation and water supply reliability goals.").

VI. The Proper Environmental Baseline Is Existing Operations, Not the Maximum Exports that the System is Operationally Capable of or Permitted For.

Both NEPA and CEQA require that the Project be analyzed against the existing environmental conditions (the "environmental baseline"), so that the Project's impacts can be meaningfully analyzed. 40 C.F.R. § 1502.15; CEQA Guidelines § 15125(a); see *County of Amador v. El Dorado County Water Agency*, 76 Cal.App.4th 931, 952 (1999). In order to meet CEQA and NEPA's informational goals, the environmental baseline must be based on actual conditions on the ground, rather than the maximum exports that the CVP and SWP are operationally capable of or the full extent of the Projects' paper water rights. Likewise, the ESA requires that the baseline for the section 7 jeopardy analysis include the effects of existing human activities, even if those activities are outside of the scope of the federal action currently contemplated. *NWF v. NMFS*, 481 F.3d at 1236-38, as modified, -- F.3d --, 2008 WL 1821470 (April 24, 2008) (rejecting use of hypothetical reference case that ignored impacts from related, nondiscretionary activities).

The requirement of using a realistic baseline takes on additional significance because of our concern that DWR's recent analysis of the potential benefits of a dual conveyance model rely on an inflated, hypothetical "reference case," rather than actual export levels.⁵ Using an unrealistic baseline significantly skews the environmental analysis, and it likely will understate the actual environmental impacts of the Project and overstate its benefits.

⁵ DWR, "An Initial Assessment of Dual Delta Water Conveyance," April 2008, available online at http://deltavision.ca.gov/BlueRibbonTaskForce/April2008/Handouts/Item_5d_Report.pdf.

Therefore, the environmental baseline analyzed in the EIS/EIR must be based on current levels of exports and withdrawals, including the restrictions to protect Delta smelt pursuant to the court's order in *NRDC v. Kempthorne*, 506 F.Supp.2d 322 (E.D. Cal., 2007), limitations to comply with D-1641, and other current legal and operational constraints on the system. The impacts of the Project must be measured against this baseline, and those impacts must be minimized to a less than significant level if feasible mitigation measures exist.

VII. Potentially Significant Impacts to be Analyzed in the EIS/EIR

The NOP identifies a list of potential issues to be analyzed in the EIS/EIR. NOP at 9. We offer the following recommendations for the analysis.

A. The EIR/EIS Must Analyze the Effects of Global Climate Change on the CVP/SWP, Minimize the Projects' Environmental Impacts in Light of Global Climate Change, and Minimize the Projects' Contributions to Global Climate Change

As the NOP recognizes (NOP at 9), and as DWR and other stakeholders are aware, global climate change is likely to substantially affect the operation of the State and federal water projects. In terms of water supply, global climate change is likely to significantly alter the timing, amount, and form of precipitation. It is anticipated that due to global climate change, significantly less snowfall will occur, particularly in the Sierra Nevada range, and that precipitation will come in the form of more frequent, more intense storms. In addition, it is likely that earlier snowmelt and increased spring runoff will occur; indeed, the date when 50% of annual runoff has occurred is one to four weeks earlier than it was 50 years ago. The percentage of total flows on the Sacramento River that occur between April to July flows declined by nearly ten percent over the last century, and it is likely that global climate change will continue this trend, resulting in substantially reduced summer runoff and flows in the Delta.

At the same time, global climate change will continue the existing trend of sea levels rise, which threatens to inundate many low lying lands in the Delta, and it likely will increase risks of flooding in the Delta. These effects have significant implications for operation of the CVP and SWP, which rely on melting snowpack for a substantial amount of the water supply that the Projects export.

In addition to effects on water supply and flood control, global climate change will affect Delta ecosystems. Changes to the timing, magnitude and form of precipitation will affect ecosystems directly, as well as likely resulting in increased water temperatures, adversely affecting cold water species like salmon. Temperature control devices, like those installed at Shasta, may be needed in other dams to protect covered species and minimize the Projects' take of these species. Increased carry-over storage to provide larger cold water pools may also be required to provide adequate protection for salmonids.

DWR's analysis of climate change indicates that climate change is likely to increase water evaporation and could reduce total stream flows, and may make it difficult for the CVP and SWP to meet existing demands for water. See DWR, *Progress on Incorporating Climate Change into*

Management of California's Water Resources (July 2006) at 2-6, 2-56, 4-14 to 4-17. Given the 50 year permit term under consideration in the BDCP, the EIS/EIR must anticipate reductions in the amount of stream flow available for export and delivery.

The operation of the State and federal water projects must adapt to the changes that global climate change will bring. In order to ensure that the Projects' impacts are minimized and mitigated, and that take of covered species is minimized and fully mitigated, the EIS/EIR must analyze how the Projects will adapt to climate change and minimize the Projects' impacts on the environment in light of these expected changes.

At the same time, CEQA requires that the Projects minimize their greenhouse gas emissions and contributions to global climate change. The water projects require significant amounts of energy to export water to destinations outside of the Delta; on average, pumping one acre-foot of SWP water to Southern California requires 3,000 kWh, and the SWP as a whole consumes an average of approximately 5 billion kWh/yr, accounting for 2 to 3 percent of all electricity used in California. Reducing exports from the Delta may significantly reduce the amount of energy used by the CVP and SWP, and thereby reduce the Projects' greenhouse gas emissions. The BDCP should analyze other actions that can be included in the BDCP to reduce greenhouse gas emissions and/or sequester carbon, such as the planting of tules and wetlands restoration.

B. The EIS/EIR Must Analyze and Minimize the Full Range of Water Quality Impacts

The analysis of the Projects' water quality impacts in the EIS/EIR must consider the full range of pollutants in the Delta, including pesticide pollution, toxic hot spots, salinity, mercury, and algal blooms. Any reduction in fresh water inflow to the Delta and/or outflow from the Delta may exacerbate existing water quality problems, resulting in a significant impact to the environment under CEQA/NEPA. In particular, salinity may not be used as a surrogate for an analysis of all water quality impacts. For example, changes in inflow patterns could change Delta residence time, lead to dissolved oxygen problems, and change the ratio of Sacramento River inflow to San Joaquin River inflow. These water quality impacts are unlikely to be adequately analyzed by a narrow focus on salinity. While many pollution problems are not caused by the Projects, the operation of the Projects undoubtedly plays a role in the magnitude, duration, and location of these water quality impacts. In addition, these water quality impacts may have cascading effects; for instance, it has been hypothesized that altered salinity levels resulting from Delta exports has increased the habitat suitability for invasive species, such as the Asian clam, that harm covered species like Delta smelt. The EIS/EIR must analyze the Projects' effects on water quality, including indirect effects to covered species and other wildlife, and those effects must be mitigated to a less than significant level.

C. The EIS/EIR Must Analyze and Minimize Impacts to Biological Resources and Habitats, Including Upland Habitats

CEQA and NEPA require that the EIS/EIR's analysis of the impacts to biological resources include the full range of plant and animal species and habitats that depend on the Delta ecosystem and may be affected by the covered activities in the BDCP. Impacts to these

biological resources must be minimized and mitigated to a less than significant level. Under CEQA, a project results in a mandatory finding of a significant impact if it would "substantially reduce the habitat of a fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; substantially reduce the number or restrict the range of an endangered, rare or threatened species." CEQA Guidelines § 15065. Such impacts must be minimized to a less than significant level if feasible mitigation measures can be implemented. Pub. Res. Code §§ 21002, 21002.1(b), 21081; CEQA Guidelines §§ 15021, 15091-93.

The EIS/EIR therefore must analyze the impacts of the Project on listed and covered species, as well as the full range of plants, birds, fish, and wildlife that live in the Delta and are affected by the CVP and SWP. This includes upland habitats and species, including grasslands and wetlands in the South Delta, Suisun Bay, and state and federal protected areas, including wildlife refuges such as the San Luis National Wildlife Refuge. The EIS/EIR should also analyze the BDCP's consistency with existing HCPs in the Delta, as well as HCPs that are in development now.

We also note that the inclusion of fall-run Chinook salmon on the list of covered species (NOP at 6) raises significant concerns. Although not currently listed under either the ESA or CESA, the fall run's population has declined precipitously in recent years, in part due to the operation of the SWP and CVP. For the first time in the State's history, the commercial and recreational fisheries for salmon were closed this year, and current data suggests that this closure may be extended to at least 2009. Inclusion of this species provides an unwelcome suggestion that DWR and the Bureau of Reclamation will manage the water projects in a manner that fails to prevent the listing of the species during the life of the permits. The analysis in the EIR/EIS must focus particular attention on this issue, and the HCP/NCCP must be designed so as to avoid the need for listing fall-run Chinook under CESA or the ESA. Fish and Game Code § 2805 (definition of "conserve"); see CEQA Guidelines § 15065(a)(1). But that is far from sufficient; a goal of the BDCP must be to maintain healthy sport and commercial fisheries, and the BDCP must include conservation measures to conserve, restore and sustain the fall-run Chinook population.

In particular, the analysis of potential impacts to salmonids and natural resources upstream of the Delta should include, but not be limited to, the following potential impacts: entrainment in any new conveyance facility; entrainment or interrupted downstream migration as a result of continued Delta pumping; increased predation; degraded water quality; reduced carry-over storage (particularly in light of the potential for deeper and longer droughts as a result of climate change); reduced cold-water pools, increased in-stream temperatures; and changes in river flows upstream of the Delta.

Finally, the EIS/EIR must analyze impacts to the entire Bay-Delta ecosystem as a whole. For example, a species-by-species approach is likely to fail to address fundamental issues related to ecosystem function.

D. The EIS/EIR Must Analyze and Minimize Cumulative Impacts

Finally, the EIS/EIR must analyze and minimize the cumulative impacts of the covered activities in conjunction with other reasonably foreseeable projects and activities, including urban and

agricultural runoff, in-Delta diversions, upstream diversions, continued and reasonably foreseeable increases in these diversions, and implementation of the San Joaquin River settlement. Even if the BDCP is limited to the covered activities specified in the NOP, and other impacts to the Delta ecosystem are not included, CEQA and NEPA require that the cumulative impacts of these other stressors be analyzed in conjunction with the impacts of the SWP/CVP. It is critical – and CEQA requires – that the cumulative impacts of the BDCP and other foreseeable projects on fish, wildlife and habitats be minimized to a less than significant level.

VIII. Effectiveness of the BDCP's Conservation and Mitigation Measures

Given the proposed fifty year term of the BDCP, ensuring that the conservation strategies and mitigation measures are likely to be effective is critical to the success or failure of the BDCP. As discussed above, the EIS/EIR must include a detailed analysis of impacts to all fish, wildlife, and habitats that could be affected by the BDCP. In order to do so, the EIS/EIR must analyze the effectiveness of the proposed conservation and mitigation measures in the BDCP.

In particular, to the extent that flexible operations and/or market mechanisms are relied upon in the plan, the document must include a thorough analysis of the performance of the Environmental Water Account ("EWA"). The EWA failed due to a wide range of problems, including: weakening of the regulatory baseline; the failure of operational flexibility to provide anticipated supplies; inadequate funding; the failure to trigger Tier 3 resources when needed; increases in the price of water on the market; a failure to fully implement the recommendations of the scientific community and regulatory agencies; the failure to analyze emerging problems and "adaptively manage" the EWA, and more. See Environmental Defense Fund, "Finding the Water," (2005), available online at http://www.edf.org/documents/4898_FindingWater.pdf; Letter from K. Poole and B. Nelson to S. Cervantes dated December 10, 2007, attached hereto as Exhibit C and incorporated by this reference. To the extent that the BDCP relies on similar conservation measures, the EIS/EIR must analyze the EWA and the likelihood that the BDCP could suffer from similar problems.

IX. Consistency with the Delta Vision "Vision" and Strategic Plan

The EIR/EIR should analyze consistency with and potential impacts on the Delta Vision "vision" and strategic plan. The Delta Vision process is addressing some of the same issues as the BDCP. However, the Delta Vision process is broader in scope. It is not yet clear to what extent the BDCP and Delta Vision will have identical or complementary ecosystem restoration goals and strategies. Given the scope of the BDCP and the 50 year proposed term of permits, the BDCP could have a significant impact on the ability of the state of California to implement the Delta Vision strategic plan. The BDCP and Delta Vision may or may not reach the same conclusion regarding conveyance. The BDCP's proposals could have indirect effects on Delta resources within the scope of the Delta Vision process. We will mention here only two possible impacts. First, if the Delta Vision Strategic Plan recommends reductions in water diversions, the achievement of that goal could be affected if the BDCP provides assurances regarding an operational scenario for the water projects at a higher rate of diversion. In addition, Delta Vision recommends governance reform to allow more balanced operation of the projects, the assurances in the BDCP could interfere with the implementation of this recommendation.

X. Scope of the BDCP

A. Scope of the BDCP and Project Area

We strongly encourage the BDCP to consider expanding the geographic scope of the BDCP. The NOP identifies the Project Area as limited to the statutory Delta, NOP at 7, even though the NOP notes that other conservation actions required by the BDCP may take place outside of the Project Area, *id.*, and the BDCP includes the operation of the SWP and CVP within the covered activities, NOP at 5. In order to manage the CVP and SWP facilities in the Delta, however, changes to upstream CVP and SWP facilities may be required; for instance, maintaining water and/or salinity levels in the Delta is dependent upon releases from CVP and SWP dams and reservoirs, which are currently not included in the Project Area. The BDCP therefore should include these reservoirs within the scope of the BDCP and include an evaluation of upstream reservoir reoperation to achieve the water quality and quantity in the Delta necessary to achieve the BDCP's goals. We also note that if these upstream reservoirs are not included in the Project Area, it would appear that they must seek separate take authorization under State and federal law. Likewise, the BDCP may want to include Suisan Bay in the Project Area, as it is a key spawning area for Delta smelt and the site of proposed restoration activities under the BDCP.

A holistic approach to managing the Delta requires that these upstream and downstream facilities and habitats be included in the BDCP. Even if such facilities and habitats are not included in the EIS/EIR, impacts outside of the Project Area must be analyzed and mitigated to a less than significant level.

B. Duration of BDCP Permits

The BDCP has proposed a fifty-year permit term. In light of the changing nature of the Delta and scientific uncertainty over causes of species declines, we encourage the BDCP to consider shorter permit terms, such as 5-10 years, rather than a fifty-year permit. *See also* Fish and Game Code § 2820(f)(1)(D), (H) (extent of regulatory assurances depend on the duration of the permit). The EIS/EIR should consider including alternative permit durations among the range of reasonable alternatives.

C. Other Activities to Potentially Include in the BDCP

The BDCP Points of Agreement asserts that other conservation actions outside of the habitat restoration program should be developed to address other stressors on the Delta, such as exposure to contaminants and toxics, entrainment in non-CVP/SWP intake facilities, and invasive species. BDCP Points of Agreement (Nov. 16, 2007) at 3, 7. However, the NOP does not include these activities within the scope of the BDCP. *See* NOP at 5-6. These activities cause significant impacts on the Delta ecosystem and listed species, and excluding these activities from the BDCP compromises its ability to develop a sustainable "solution" for the Delta.

Therefore, we encourage the BDCP to work with parties involved with these activities in order to consider including these activities in the framework of the BDCP. Regardless of whether they

are included in the regulatory framework, NEPA and CEQA require that their impacts be included in the current regulatory baseline, and that the cumulative impacts of the BDCP and these activities be analyzed and mitigated to a less than significant level.

D. Inclusion of Mirant Delta Power Plants in the BDCP HCP/NCCP

We have some concerns about including the operations of the Mirant Delta power plants within the scope of this HCP/NCCP. While there are significant concerns with effect of the operation of these power plants on endangered species, notably Delta smelt, *see* Mike Taugher, *Mirant plants attract attention in delta crisis*, Contra Costa Times, March 15, 2006, there are also numerous other activities that cause potentially significant harm to Delta smelt and other covered species, as discussed above.

If the Mirant Delta power plants are included in the BDCP, particular attention should be paid to the following issues related to operation of the plants and their environmental effects:

- Analysis and minimization of the impacts of the entrainment of fish, effects of thermally heated discharges, and other impacts on covered species and other fish and wildlife species, including operational and structural changes such as:
 - Requiring more effective screening of the plants' cooling water intakes;
 - Changes to existing cooling water intakes and intake flow velocities;
 - Monitoring and reporting the plants' take of covered species;
 - Temporal and/or other restrictions on water withdrawals; and
 - Elimination of the existing once-through cooling systems for the plants, and replacement with dry cooling or recirculating cooling systems;
- Operational changes or other actions to reduce greenhouse gas emissions from plant operations; and,
- Establishing strict and enforceable numeric limits on the take of covered species.

As with operation of the SWP and CVP, the operations of the Mirant Delta power plants authorized by the HCP/NCCP must minimize take of covered species, minimize all environmental impacts to a less than significant level, and comply with existing legal requirements applicable to the plants.

XI. The EIS/EIR Should Analyze the Economic Costs and Benefits of Water Conservation and Other Measures to Meet Water Supply Needs, as well as Identifying Reasonable Sources of Funding to Implement the BDCP.

Although not required by CEQA, *see* CEQA Guidelines § 15064(e), an EIS under NEPA often includes an analysis of the economic impacts of the Project. *See also* 40 C.F.R. § 1502.23. In addition, as noted earlier, both the ESA and NCCPA require an identification of the guaranteed funding sources for implementation of the actions contemplated in the approved HCP. 16 U.S.C. § 1539(a)(2)(B)(iii); Cal. Fish and Game Code § 2820(a)(10), (b)(6), (8), (f)(1)(E).

More broadly, informed policy-making on the question of sustainably managing the Delta requires some analysis of the economic costs and benefits of each alternative, as well as an identification of funding sources that will implement the alternative plans being considered in the BDCP. While some environmental benefits are likely to be speculative and unquantifiable, and economic considerations cannot trump environmental considerations under NEPA and CEQA, economic considerations can be useful to inform decision-making.

In particular, numerous studies have demonstrated that water conservation and investments in water efficiency are far more cost effective than developing new storage facilities or otherwise expanding water supplies, including DWR's California Water Plan Update 2005. In light of the BDCP's water supply reliability goal, to the extent that the BDCP looks at how to meet the water supply needs of exporters in light of alternatives that reduce water exports over historic levels, the EIS/EIR should compare the cost effectiveness of water conservation and efficiency, and a full range of water supply alternatives with the construction, maintenance and operation of Delta conveyance facilities and other water supply components identified in the BDCP.

XII. The Scoping and Comment Period for the EIS/EIR Should be Reopened Upon Completion of the BDCP Conservation Strategy and Adoption of the Delta Vision Strategic Plan.

Consistent with our March 24, 2008 letter, and in order to improve informed public participation in the process, we respectfully request that the agencies re-open the scoping and comment process upon completion of the draft BDCP conservation strategy and Delta Vision Strategic Plan. Doing so will ensure that the conservation actions and alternatives that are developed through the BDCP conservation strategy are analyzed in the EIS/EIR, and it will better ensure that the BDCP is consistent with the Delta Vision Strategic Plan.

XIII. Conclusion

Thank you for consideration of our views. Please feel free to contact us at your convenience if you have any questions or concerns.

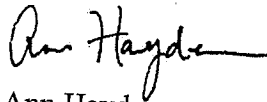
Sincerely,



Doug Obegi
Natural Resources Defense Council



Kim Delfino
Defenders of Wildlife



Ann Hayden
Environmental Defense Fund



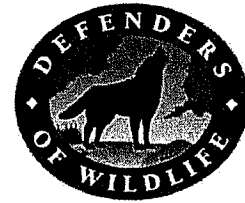
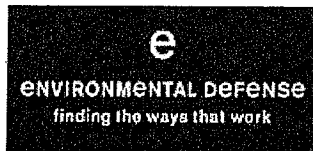
Gary Bobker
The Bay Institute

Joint Comments RE: Scoping for the BDCP EIS/EIR
May 30, 2008
Page 17

cc: Russell Strach, National Marine Fisheries Service
Donald Koch, Department of Fish and Game
Steve Thompson, U.S. Fish and Wildlife Service
Donald Glaser, Bureau of Reclamation
Karen Schwinn, Environmental Protection Agency

Enclosures:

- Exhibit A: Scoping Comments on BDCP EIS/EIR from NRDC, EDF and Defenders of Wildlife submitted to NMFS and USFWS dated March 24, 2008
- Exhibit B: Key Elements of a Strategic Plan to Implement the Delta Vision (May 2008)
- Exhibit C: NRDC Comments on the Draft Supplemental EIS/EIR for Extending the Environmental Water Account and OCAP Consultations (Dec. 10, 2007)



March 24, 2008

VIA EMAIL AND FIRST CLASS MAIL

National Marine Fisheries Service
Attn: Rosalie del Rosario
650 Capitol Mall, Suite 8-300
Sacramento, CA 95819

U.S. Fish and Wildlife Service
Attn: Lori Rinek, Chief
Conservation Planning and Recovery Division
Sacramento Fish and Wildlife Office
2800 Cottage Way, W-2605
Sacramento, CA 95825
BDCP-NEPA.SWR@noaa.gov

Re: Scoping Comments on the proposed EIS/EIR for the Bay-Delta Conservation Plan

Dear Mss. del Rosario and Rinek:

We are writing on behalf of the Natural Resources Defense Council ("NRDC"), Environmental Defense Fund ("EDF"), and Defenders of Wildlife ("Defenders") with regard to your agencies' request for input on the proposed Environmental Impact Statement/Environmental Impact Report ("EIS/EIR") for the Bay-Delta Conservation Plan ("BDCP"). *See* 73 Fed. Reg. 4178 (Jan. 24, 2008). Collectively, our organizations represent hundreds of thousands of members and activists in California. EDF and Defenders are participants in the BDCP planning process and members of the Steering Committee. NRDC has previously submitted comments on the BDCP process, but has not participated as a member. Despite our differing levels of participation, our organizations would like to raise the following issues regarding the scope of the proposed EIS/EIR, and urge your agencies to address these issues in order to develop a comprehensive and legally sufficient EIS/EIR.

I. THE EIS/EIR MUST CLEARLY IDENTIFY AND SEGREGATE CONSERVATION ACTIONS FROM WATER SUPPLY RELIABILITY ACTIONS

The BDCP has a number of laudable and potentially competing goals, which will need to be carefully considered in the development of the EIS/EIR. As described by the

California Department of Water Resources, the state lead agency for the EIS/EIR: "the BDCP is intended to secure authorizations that would allow the conservation of covered species, the restoration and protection of water supply reliability, protection of certain drinking water quality parameters, and the restoration of ecosystem health to proceed within a stable regulatory framework." DWR, Notice of Preparation, BDCP EIS/EIR at 2 (March 17, 2008) ("DWR NOP"). It is clear that some proposed actions will be better at achieving some of these objectives, and worse at achieving others. The EIS/EIR must clearly identify and segregate actions that are proposed to achieve each of these objectives, and how each action affects the remaining objectives, to allow decisionmakers and the public to identify the optimal suite of actions for restoring the Bay-Delta.

With the BDCP's stated co-equal goals of fish and wildlife conservation and water supply reliability, we urge the federal agencies to structure the EIS/EIR in a manner that does not subjugate the BDCP's conservation goal to the water supply reliability goal. The NOP states DWR's intention to "evaluate at least four alternative Delta conveyance strategies in coordination with the BDCP efforts to better protect at-risk fish species, within the context of broader habitat conservation principles..." DWR NOP at 3. In addition, the NOP states that "the collective goals of the PREs will provide the basis for the project objectives under CEQA and the purpose and need statement under NEPA." *Id.* at 4. These statements could lead the public to believe that the focus of the analysis will be on water supply, with actions to achieve conservation goals being secondary considerations. As you know, an EIS/EIR designed to analyze and authorize new conveyance with fish, wildlife and habitat conservation actions tacked on secondarily will very likely fail to generate the level of necessary level of public support for a Delta plan, not to mention fail to meet all of the BDCP's goals. Therefore, we urge the agencies to conduct the EIR/EIS analysis in a manner that makes it clear that the BDCP is designed to meet *both* the conservation and water supply reliability goals.

II. THE EIS/EIR MUST INCLUDE IN-DEPTH ANALYSIS OF THE IMPACTS OF REDUCED DELTA DIVERSIONS AND IMPROVED WATER CONSERVATION, RECYCLING AND GROUNDWATER MANAGEMENT

Key actions to help meet water supply reliability and improve the Bay-Delta ecosystem in a cost-effective and environmentally sound manner include increased water conservation, recycling, and conjunctive use of groundwater and surface water. DWR's most recent State Water Plan update indicates that these three tools combined could cost-effectively yield new water supply on a scale equivalent to recent exports from the Delta: approximately 6 million acre-feet. Broad application of low impact development, appropriate land retirement and transfers, agricultural conservation, water pricing reform, and other tools could generate significant additional supply. Clearly these readily available tools can help provide enough water to meet the state's future needs while significantly reducing Delta diversions, with potential water supply reliability and ecosystem benefits. While the press release accompanying DWR's NOP acknowledges that "[i]ncreasing water conservation is an essential element of fixing the Delta," there is

no clear commitment to include these alternative water supply actions as a central component of the EIS/EIR. The EIS/EIR must include analysis of the impacts of this option.

As DWR explains, the water supply-related goal of the BDCP is "the restoration and protection of water supply reliability." DWR NOP at 2. Water supply reliability is a function of both supply and demand, and demand reduction measures can be just as effective at improving reliability as supply enhancement measures. Indeed, we believe that they can often be more effective in improving reliability. *See, e.g.,* DWR, Draft State Water Project Delivery Reliability Report 2007. Water users statewide, including those involved in the BDCP, have considerable untapped capacity to improve the efficiency of their water use, reduce their demand through improved groundwater management, water recycling, stormwater capture, and other methods. Realizing this untapped capacity would help reduce water demand, and subsequently reduce reliance on the Delta while improving water supply reliability. *See* NRDC, *Effective Solutions to Meet California's Water Supply Reliability Needs* (February 25, 2008), appended as Attachment 1; Testimony of Jeffrey Kightlinger, General Manager, Metropolitan Water District of Southern California before the House Committee on Natural Resources, Subcommittee on Water and Power (January 29, 2008), appended as Attachment 2; Testimony of Richard W. Atwater, General Manager, Inland Empire Utilities Agency before the House Committee on Natural Resources, Subcommittee on Water and Power (January 29, 2008), appended as Attachment 3. Indeed, Governor Schwarzenegger recently recognized the potential for this type of demand-side water management by releasing a new water plan that includes a 20 percent reduction in per capita water use statewide by 2020. *See* Letter from Governor Schwarzenegger to Senators Perata, Steinberg, and Machado (February 28, 2008), appended as Attachment 4.

The EIS/EIR should include an analysis of the impact of these demand reduction measures on water supply reliability and the other goals of the BDCP process.

III. THE GEOGRAPHIC SCOPE OF THE EIS/EIR SHOULD INCLUDE STATEWIDE ACTIONS AND IMPACTS

The scoping notice states that the geographic scope of the BDCP is generally limited to the legal Delta. However, whatever the geographic scope of the BDCP itself, NEPA and CEQA require the consideration and analysis of connected actions. It is clear that water use beyond the scope of the legal Delta will affect conservation actions and water supply considerations that are within the scope of the BDCP's goals. For example, upstream water users who deprive the Bay-Delta system of inflow by diverting water upstream of the Delta or contributing polluted return flows clearly impact the downstream ecosystem and fisheries. The Delta Vision Task Force has highlighted the impacts of these upstream diversions. *See* Delta Vision Blue Ribbon Task Force, *Our Vision for the California Delta*, at 37 (November 30, 2007). These impacts and ways to address them should be included in the EIS/EIR.

IV. THE EIS/R MUST ANALYZE A BDCP THAT IS DEVELOPED TO ACHIEVE RECOVERY OF THE BAY-DELTA ECOSYSTEM

The EIS/EIR must clarify that the BDCP will not provide any assurances or take permits without a firm commitment to and demonstrable progress in achieving recovery of the Bay-Delta ecosystem. To date, many of the BDCP Steering Committee members have not fully committed that the BDCP will meet the recovery requirements of the California Natural Community Conservation Planning Act ("NCCPA"). However, the federal Endangered Species Act requires that any lawful BDCP must not only prevent the extinction, but must also bring about the recovery of threatened and endangered species. *TVA v. Hill*, 437 U.S. 153, 185 (1978). The Ninth Circuit Court of Appeals has recently rejected several plans for failing to satisfy this recovery directive of the ESA. *National Wildlife Federation v. Nat'l Marine Fisheries Serv.*, 481 F.3d 1224, 1237-38 (9th Cir. 2007); *Gifford Pinchot v. U.S. Fish & Wildlife Service*, 378 F.3d 1059, 1069 (9th Cir. 2004).

While the decision has not been made yet as to whether or not the BDCP will be a Natural Community Conservation Plan ("NCCP"), our organizations continue to work to ensure that the final plan does meet NCCP standards. As such, we urge the agencies to broaden the list of species considered for conservation to include terrestrial wildlife and plants. The various alternatives to be examined within the BDCP will all have enormous impacts on land-based birds and wildlife as well as plants. The goal of any NCCP is to develop a plan that is designed to conserve the "entire community" of species within a planning area. To date, the NOI and other BDCP documents have not yet begun to grapple with the conservation issues beyond the imperiled fish species. The time has come for the BDCP parties to expand the list of species to include terrestrial as well as aquatic species. Therefore, the EIR/EIS must analyze impacts and conservation actions for all fish, wildlife and plants within the planning area, with particular attention to declining, sensitive, threatened and endangered species.

Finally, in light of ESA and NCCP "conservation" requirements, the EIS/EIR should make clear that recovery is a fundamental and necessary goal of any acceptable alternative.

V. THE EIS/R MUST INCLUDE A MEANINGFUL BASELINE FROM WHICH TO MEASURE IMPACTS

As indicated above, the NOP states that the water supply-related goal of the BDCP is "the restoration and protection of water supply reliability." DWR NOP at 2. This statement includes significant ambiguity. Some parties are clearly seeking a "restoration" of deliveries to previous and unsustainable levels of exports. If this is the case, then BDCP could have the effect of increasing freshwater diversions, in comparison with current conditions. The EIR/EIS must include a meaningful regulatory baseline for current Delta operations, against which potential impacts would be measured. That baseline must include the existing protective measures required to protect delta smelt, pursuant to the

federal court's decision in *NRDC v. Kempthorne*. See Interim Remedial Order Following Summary Judgment and Evidentiary Hearing, *NRDC v. Kempthorne*, civ. no. 1:05-cv-1207 (Dec. 14, 2007). It must also include any requirements that may be imposed to protect crashing salmonid populations in the Sacramento and San Joaquin River systems in the companion case of *Pacific Coast Federation of Fishermen's Associations v. Gutierrez*, civ. no. 1:06-cv-0245. Clearly, court orders required to limit exports and diversions to protect imperiled fisheries provide evidence that the diversion levels of recent years are not sustainable and cannot serve as a reasonable baseline.

**VI. THE TIMELINE FOR THE BDCP DOCUMENT MUST REFLECT THE
TIMELINE FOR THE CONSERVATION STRATEGY PROCESS**

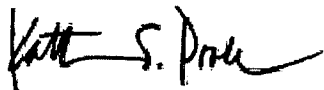
The timeline in the NOP indicates that the scoping process will be completed at the end of 2008. However, the timeline also indicates that the draft conservation strategy will not be completed for approximately another 6 months. It is inappropriate to close the scoping phase for the BDCP EIR/EIS in advance of the development of the draft plan that is the ostensible purpose of the process. Clearly, the process of developing a conservation strategy could lead to possible actions that may not be included in or anticipated by a scoping process that was completed half a year previously. This potential imbalance in the schedule could leave the public with the impression that water supply considerations, rather than conservation objectives, are driving the process. Therefore, we urge the lead agencies to adjust the scoping process as necessary to adequately incorporate the development of a conservation strategy. This adjustment would also likely provide adequate time for the BDCP to incorporate the final implementation recommendations of the Delta Vision process, which we believe would be of great benefit to the overall planning effort of both BDCP and Delta Vision.

In addition, it is possible that the schedule for the BDCP may need to be extended to adequately develop the conservation plan itself. Therefore, the lead agencies should make a provision to adjust the closure of the NEPA/CEQA scoping process in the event of any extensions in the BDCP timeline.

Thank you for considering our comments.

Comments of NRDC, EDF, and Defenders
March 24, 2008
Page 6 of 6

Sincerely,



Katherine Poole
Senior Staff Attorney
Natural Resources Defense Council



Kim Delfino
California Program Director
Defenders of Wildlife



Ann Hayden
Senior Water Resource Analyst
Environmental Defense Fund

ATTACHMENT 1



EFFECTIVE SOLUTIONS TO MEET CALIFORNIA'S WATER SUPPLY RELIABILITY NEEDS

The Bay-Delta Estuary is facing a crisis. Numerous species are listed as threatened or endangered, or proposed for listing. The Delta smelt is on the verge of extinction. The status quo is not sustainable for any of the Delta's users, including farmers, commercial and sport fishermen, Delta residents and the 23 million Californians who rely on the Delta for a portion of their water supply. Investments to improve water supply reliability must also improve conditions in the Delta. By directing state funds to alternative water supplies, Delta flood protection and restoring a healthy ecosystem, the State will help improve water supply reliability, meet the needs of a growing population and protect imperiled fish species.

There is a broad consensus regarding the most effective tools to meet California's future water supply needs. The 2005 California Water Plan update contains extensive, detailed estimates of the water supply potential of a range of proven water supply tools. The bar chart below presents many of those totals, ranging from low to high yield estimates. We believe that the more ambitious estimates are realistic, and that aggressive targets and ambitious programs are required to assure Californians a reliable water future. DWR estimates that the three tools with the greatest potential – urban water conservation, wastewater recycling and improved groundwater management – could, together, produce more than six million acre-feet of new water. This represents approximately as much water as the CVP and SWP have diverted from the Delta in recent years, and more than enough to reduce Delta diversions and meet future growth needs.

NRDC believes that total Delta diversions must be reduced from the unsustainable record levels in recent years. We are working with other members of the environmental community to develop a science-based target for that reduction, which we will provide to the Task Force in the near future. Urban water use efficiency and other tools discussed below can provide the State with near-term and cost-effective supplies to offset any impacts from a reduction in Delta supplies.

Proven "Cornerstone" Water Supply Reliability Tools

Urban Water Use Efficiency: Currently, urban areas use over eight million acre-feet of water during a typical year. One-third or more of this water is used to irrigate urban landscapes. Urban water use efficiency could yield up to **3,500,000 acre-feet** of water per year according to the Pacific Institute's most recent projections. (This estimate is close to DWR's estimate of 3.1 million acre-foot high estimate of the potential of urban conservation at \$230-522 per acre-foot.) Significant reductions in water use can be achieved through design, installation and maintenance of water efficient landscapes, along with indoor conservation measures in the commercial, industrial and residential sectors. These savings can be realized by investing in current, off-the-shelf technologies, reducing lost and unaccounted for water through system water audits, and increasing implementation of conservation pricing. New water efficient technologies will undoubtedly continue to emerge and contribute additional savings in the future.

Recycled Water: Recycling urban wastewater (also known as reclamation or re-use) is an important strategy to increase water supply. Recycled water is most frequently used for agricultural or landscape irrigation or groundwater recharge. DWR estimates water recycling can generate up to **1,500,000 acre-feet a year** by 2030 at average cost of \$600 per acre-foot.

Improved Groundwater Management: The Department of Water Resources estimates that improved groundwater management, such as the conjunctive use of surface and underground storage, has the potential to provide between 500,000 and 2 million acre-feet at costs ranging from \$10-600. The average cost in a recent round of applications received by DWR for conjunctive use projects was \$110 per acre-foot. The appropriate target for conjunctive use will be determined in part by decisions on water management in the Delta, which will influence potential yield from groundwater storage. Such investments are likely to yield greater benefits south of the Delta, where projects may be less constrained by Delta operations and provide greater independence from the Delta. This effort could also be coordinated with floodplain and habitat restoration efforts in the Central Valley.

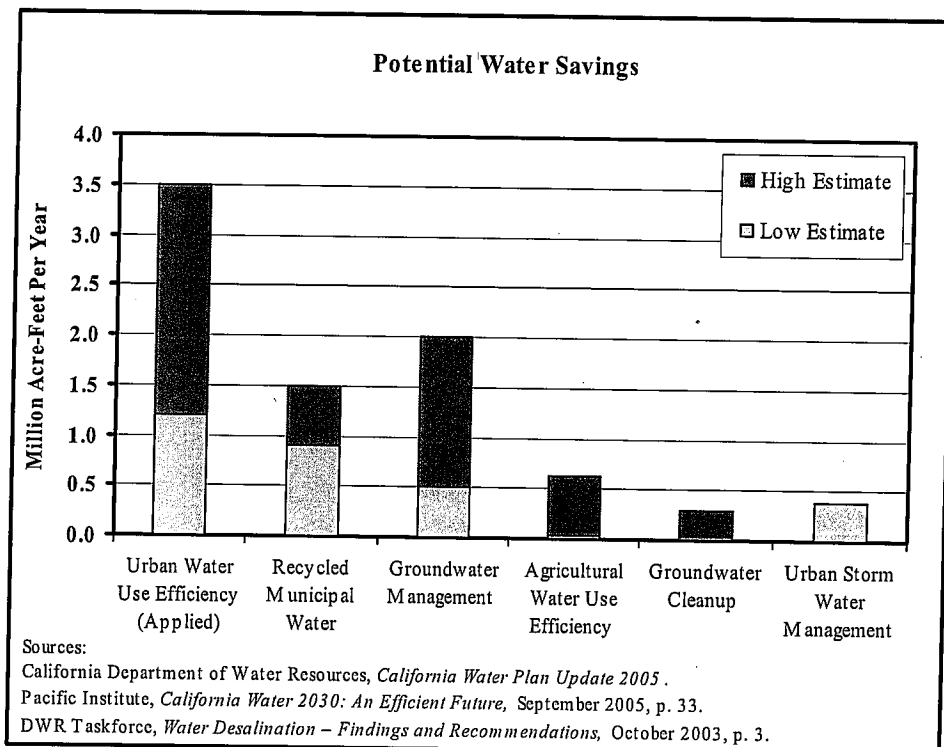
Additional Effective Strategies

In addition to the key tools discussed above, a number of additional water management tools can generate significant additional supplies.

Agricultural Water Use Efficiency: Eighty percent of California's annual water use goes to agriculture. Although in some areas considerable strides have been made in water use efficiency, farming methods are not as water-efficient as they can be. The California Bay-Delta Authority's Year Four report estimates up to **620,000 acre-feet** of water can be saved through agricultural water use efficiency, which includes installing micro-irrigation technology or other water management improvements, at a cost of \$242 per acre-foot. We believe that these estimates understate the true potential of this tool.

Additionally, agricultural water is often highly subsidized. Pricing reform that sends clear, meaningful signals to agricultural water users can be very effective in encouraging increased water use efficiency.

Groundwater Clean-up: Removing salts, including nitrates, from groundwater can be a cost-effective means of producing clean water supplies, recharging stressed and contaminated aquifers, and increasing groundwater storage capacity without the need to build expensive surface storage projects. DWR estimates brackish groundwater desalination costs \$250-500 per acre-foot, with a potential of yielding up to **290,000 acre-feet per year**.



Urban Storm Water Management: Urban water agencies, particularly in Southern California, are increasingly recognizing the potential to provide multiple benefits by capturing, treating (where necessary), storing and using urban storm water. Use of low impact development techniques (LID) results in the diversion and capture of storm water and dry-weather runoff before it flows into surface waters. This water can then be used on- or off-site as an alternative water source for irrigation of parklands, sporting fields, cluster housing groups, or for fire-fighting. Such projects can provide water supply and flood management benefits, while reducing coastal pollution from urban runoff.

Nationally, research has repeatedly shown that LID has the potential to deliver vast quantities of useable water through recharge and infiltration, and that it is the most effective and cost-efficient means of managing storm water and abating water pollution. Further, LID uses common sense and simple technology – strategically placed beds of native plants, rain barrels, “green roofs,” porous surfaces for parking lots and roads, and other tools – to retain rainfall on site or help rainfall soak into the ground, rather than polluting the nearest water body.

The Los Angeles Integrated Regional Water Management Plan indicates that proposed urban storm water management projects can generate **100,000 acre-feet** from urban storm water capture, and that the maximum potential is at least twice that amount. NRDC's preliminary estimate of the water savings from implementation of LID practices suggests that if LID were used in just 50% of all residential and commercial properties in Los Angeles, Riverside, and San Diego Counties, **377,000 acre-feet** annually could be infiltrated or otherwise reused. By offsetting energy-intensive imported water in like amounts, and after accounting for average energy requirements associated with pumping groundwater in these areas, LID could result in the reduction of up to 45,000 metric tons of CO₂ annually in Los Angeles County and an additional 55,000 metric tons of CO₂ in San Diego and Riverside Counties combined.

Transfers and Land Retirement. These tools must be carefully designed in order to avoid impacts to third parties. However, significant land retirement on the west side of the San Joaquin Valley is very likely and can generate significant water savings. For example, the Westlands Water District has advocated a land retirement program of up to 200,000 acres. Farming this land has historically required as much as 700,000 acre-feet of water.

Benefits of Alternative Water Management Strategies

A Healthier Bay-Delta and Other Ecosystems: Investments in surface storage could harm the Bay-Delta ecosystem by reducing flows to the Delta or increasing diversions from the Delta. In contrast, alternative water management tools would decrease our reliance on the Delta.

Energy Savings and Reduced Greenhouse Gas Emissions: Almost 20% of California's electricity use, and over 30% of its non-power plant natural gas use, is associated with the use of water. Water use efficiency and recycling can generate substantial energy savings and reductions in greenhouse gas emissions, and help the State meet AB 32 implementation targets.

Water Quality Benefits: Investing in water efficiency and groundwater cleanup will improve water quality by reducing urban runoff from lawns and gardens. In addition, investments in these tools will also help stretch limited state and federal funds available for water and wastewater treatment facility expansions and upgrades, by delaying or reducing the size of water system expansions. These investments will also improve drinking water quality, particularly for poorer communities in the Central Valley that rely on groundwater.

Reducing the Economic Risk from Delta Levee Failures: A massive levee failure in the Delta could jeopardize a critical water supply for 23 million Californians. Investments in alternative water management tools will reduce reliance on Delta diversions, thereby decreasing the risk to California's economy from potential Delta levee failures.

Strategies to Achieve Maximum Water Savings

This memo focuses on potential targets for a range of water management tools. The bullets below briefly outline key strategies that can maximize the water savings from these tools. We will present more details regarding these and other strategies in the future.

A Clear Conclusion Regarding Delta Diversion Totals: The single most effective thing the Delta Vision Task Force could do to encourage the development of alternative water supplies would be to make a clear, forceful recommendation regarding the need to reduce Delta diversions by a specified amount. Reducing Delta diversions will be a significant change from the trend over the last four decades. The likelihood that we will succeed in this transition will be greatly increased if the state has a clear goal to guide planning efforts and investments.

Learning from California's Energy Efficiency Success: California has emerged as a global leader in energy efficiency. We believe that the policy tools, such as a loading order and public benefits charges that have made this progress possible in the energy arena, can produce similar progress in encouraging water use efficiency. (See NRDC's white paper entitled: *Transforming Water Use: A California Water Efficiency Agenda for the 21st Century*.)

AB 32 Implementation: Reducing Delta diversions and investing in alternatives, such as water conservation, has the potential to significantly reduce energy use and greenhouse gas emissions. By integrating water planning with energy and climate change efforts, the state can take advantage of the synergies among these issues, including potential additional funding sources for less energy intensive alternatives to Delta diversions.

Integrated Regional Water Management: In recent years, IRWM has emerged as a key strategy to design water management solutions tailored to local needs, by considering local conditions, a full range of water management tools and a broad spectrum of potential benefits.

Credible Economics and Financing: Delta Vision should recommend that state and federal agencies carefully analyze the cost of alternative water supply strategies. Individual water agencies do this as a matter of course. However, state and federal agencies often fail to incorporate adequately basic economic analysis. For example, public funds dedicated to improving water supply reliability should be focused on the most cost-effective environmentally sound tools. The Delta Vision Task Force should develop recommendations to reduce water subsidies (e.g. by reforming renewed CVP contracts) and move toward real "beneficiary pays" financing.

ATTACHMENT 2

Testimony

Provided By

Jeffrey Kightlinger, General Manager
Metropolitan Water District of Southern California

On

The Immediate Federal and State Role in
Addressing Uncertain Water Deliveries for California
and Impacts on California Communities

Before the

Committee on Natural Resources
Subcommittee on Water and Power
United States House of Representatives

January 29, 2008

House Subcommittee on Water and Power
**"The Immediate Federal and State Role in Addressing Uncertain Water Deliveries
for California and Impacts on California Communities"**

**Oral Testimony by Jeffrey Kightlinger, General Manager
Metropolitan Water District of Southern California**

Thank you Chairwoman Napolitano. I am pleased to give you and the subcommittee a brief survey of the impacts being felt throughout Southern California from the evolving water situation and Metropolitan's response. We face a new reality and new roles for Metropolitan and the state and federal governments to bringing more certainty to our water future.

At the moment we are roughly on track for an average rainfall year in both Southern California and Northern California. Traditionally this was good news. Traditionally this would mean that Metropolitan would likely receive enough water from the Sacramento-San Joaquin Delta to meet local demands and make modest additions to our storage reserves.

But not this year. Because of ongoing environmental problems in the Delta, there are court-ordered curtailments in water deliveries that started late last year and are expected to last into June. At the moment, the State Water Project has committed to delivering 25 percent of water supplies to its contractors throughout California. This percentage may increase, but Metropolitan is making preparations for a significant cutback in supplies. Metropolitan is responding by seeking to purchase additional supplies on the open market and funding a \$6 million dollar water use efficiency outreach campaign to encourage conservation throughout our service area. In addition, Metropolitan's board of directors has approved over \$30 million to aggressively implement water conservation and recycled hook-ups for public agencies and the commercial and industrial sectors.

Our tracking polls suggest that nearly half of the 18 million people in our service area have gotten the message and are taking steps to lower water use. This is helpful. Along with our efforts to creatively manage our resources, Metropolitan also invested in efforts to increase our storage capacity. In fact, today we have 10 times the amount of water in storage than we did during the last drought in the late 1980s and early 1990s. This includes a \$2 billion capital investment in the building of Diamond Valley Lake, which alone nearly doubled the region's surface water storage capacity. Those reserves provide a cushion and give us some time. But, with the new restrictions in the Delta, we are now living on that borrowed time. That realization, and the uncertainties in the Delta, are beginning to create water supply impacts throughout the region.

Metropolitan, working with its member agencies, is developing a plan to equitably allocate our available State Water Project supplies from the Delta, the Colorado River Aqueduct and water stored in reserves. The primary objective of the plan is to minimize the impact on the overall regional economy. We are also striving to strike a balance recognizing needs from MWD, accounting for local supply and rewarding local districts that lower demands and increase supplies. A sterling example is Orange County. Last week it celebrated the opening of one of the largest water recycling facilities in the world. This facility will turn wastewater that used to drain into the Pacific Ocean into a reliable

high-quality drinking water supply that will help replenish the local groundwater basin. Metropolitan provided incentive funds to help make this project a reality. This is precisely the kind of strategic regional partnership that Metropolitan is working to replicate throughout our service area.

In the coming weeks and months, Metropolitan will review existing and new programs to lower demand and increase local supplies. We will be doing this despite rapidly rising costs from the State Water Project and other investments, which will likely require double-digit rate increases into the future. We continue to identify and implement new ways to lower demand and increase local supplies because we have seen the dramatic results of past efforts. And we are re-evaluating and updating our long-term water strategy, our Integrated Resources Plan, to determine if our conservation and local water supply targets should be even more ambitious.

To ensure our long-term plans are taking into account the impacts of climate change, Metropolitan has entered into a partnership with the RAND Corporation to develop appropriate planning models and protocols that would take into account long-term impacts on water supplies. The state has taken a leadership role with its energy policy, which is focused on landmark efforts to reduce greenhouse gases and working to ensure a better linkage between water and energy. Conserving water helps reduce the need to transport and treat water, which are energy-consuming activities. Metropolitan is evaluating its carbon footprint in tandem with our water supply and planning efforts. While there is much still to be done when it comes to water conservation, it is important to recognize how far Southern California has come. As an example, in the past 15 years Metropolitan has invested more than \$200 million in water-conserving devices. These conservation investments, combined with plumbing code reforms, reduce our potential demands by about a million acre-feet per year. Had we not been this successful in lowering demand and simply expected the State Water Project to solve the region's problems, our demand on the Delta would be about 50 percent larger now. Given the multiple changing conditions due to climate change, endangered species rulings and other impacts in the Delta, Metropolitan has embarked upon a comprehensive update of its long-term Integrated Resources Plan. A renewed focus on the development of local resource projects will help decrease our dependency on the Delta. But we do need a more reliable supply from the Delta than the current system is providing. And we embrace the notion that restoring the health of this ecosystem is an essential ingredient to creating a more reliable water system.

How can the federal government help? We urge the federal agencies to remain active and engaged participants in the Delta. We need a new biological opinion from the U.S. Fish and Wildlife Service that will guide the operations of the State Water Project and the Central Valley Project. Metropolitan is actively seeking operational strategies that can help reduce conflicts between pumping operations and fish migration patterns. We also need the active participation of the federal wildlife agencies in coming up with a new Bay Delta Conservation Plan, which is exploring new and better ways to separate the movement of water supplies from the natural flows in the estuary. Yes, that may mean some form of a canal as one piece of a much larger solution. We need the feasibility studies and better science to understand new ways of moving water supplies. The deliberations ahead should be based on new facts and not old fears. Metropolitan has made a commitment to seek reliability from Delta supplies, and to find the water for new

growth from within our service area, a historic difference between the emerging Delta discussion and debates of the past. Metropolitan urges the federal government – our elected officials, federal agencies and staff – to support our local resource projects including recycling and other conservation programs.

As for assistance from the state, while we recognize the challenging fiscal situation, there are ways that the state can help. Metropolitan seeks to sponsor or support state legislation that would create a standard approach for regional water boards to authorize water recycling projects that seek to store supplies in groundwater basins. There are hundreds of millions of dollars from bonds that voters have already approved that are available to address parts of the Delta problem and to help regions become more self-sufficient. Metropolitan remains a constructive and realistic participant to bring about dramatic and historic change in the Delta. We are very pleased to have the interest and involvement of both the state and federal governments to solve our problems and a collective recognition that the Delta as we know and manage it today is a broken ecosystem that needs fixing. Thank you Chairwoman for today's hearing and I would be happy to respond to any questions.

ATTACHMENT 3

COMMITTEE ON RESOURCES
Subcommittee on Water and Power

**“The Immediate Federal and State Role in
Addressing Waste Deliveries for California
and the Impacts in California Communities”**
January 29, 2008

Testimony by
Richard W. Atwater
General Manager
Inland Empire Utilities Agency

I. Introduction

Thank you Chairwoman Grace Napolitano and members of the Subcommittee for Water and Power for the opportunity to testify before today regarding the water problems facing California. I am the General Manager of the Inland Empire Utilities Agency. The Subcommittee has asked four important questions related to how address the critical water problems from Judge Wanger’s court decision and how we develop regional and statewide strategies with the federal government to meet the challenges of having less water available from the Delta and the related issues with developing a sustainable ecosystem. The Inland Empire Utilities Agency in partnership with many other agencies in southern California and with financial assistance from the State of California and the Bureau of Reclamation is implementing a “Drought Proofing Strategy” that is a key element of a Delta Plan. We have recognized the challenges for a long time of meeting the statewide water needs in an environmentally responsible manner have committed over \$500 million over the past seven years to implement projects that will develop new local supplies in southern California and reduce our need for Delta exports.

A. Inland Empire Utilities Agency/Chino Groundwater Basin

The Inland Empire Utilities Agency, a municipal water district under California law, was formed in 1950 by a popular vote of its residents. The service area of the Agency is entirely in San Bernardino County and has a current population of approximately 800,000. The IEUA service area is rapidly growing and will probably increase by 50 percent to 1.2 million within the next 20 years. The Chino Groundwater Basin was adjudicated in 1978 and is governed by a 9 member Watermaster Board. Overall water use is about 350,000 acre-feet annually, 70 percent of the supplies are from local sources within the Santa Ana Watershed. With the rapid growth, demand from MWD could increase from 70,000 acre-feet per year currently to 150,000 acre-feet in 2020 if we did business as usual! However IEUA, Chino

Basin Watermaster and in cooperation with many other agencies have developed a "Drought Proof Plan" that will develop over 100,000 acre-feet of new local supplies to minimize the need for additional imported water from MWD, thereby reduce our need for more Delta (SWP) water supplies.

B. History, Background and Interagency Relationships with CALFED Bay-Delta Program

The Agency has been a member agency of the Metropolitan Water District since 1950 and distributes about 70,000 acre-feet of imported water to the cities of Chino, Chino Hills, Fontana (through the Fontana Water Company), Ontario, Upland, Montclair, Rancho Cucamonga (through the Cucamonga County Water District), and the Monte Vista Water District. The Agency also provides wastewater treatment service (four regional water recycling plants that produce about 60 million gallons per day or 67,000 acre-feet per year). Excess recycled water flows downstream into the Santa Ana River where the Orange County Water District recharges that water into the Orange County groundwater basin for drinking water.

The Agency is also a member of the Santa Ana Watershed Project Authority (SAWPA) and is an active member of the Santa Ana River Watershed Group and the Chino Basin Watermaster. As a member agency of SAWPA, the Agency's water projects are closely coordinated with the SAWPA watershed wide planning and the funding of priority projects through the Water Bond Proposition 13 and Proposition 50 grants.

Public and Private Partnerships to Improve the Santa Ana Watershed

- Santa Ana Watershed Project Authority (SAWPA) has maintained an inclusive dialogue with all interested parties and is leading the update of the Santa Ana integrated regional watershed management plan through the "One Water-One Watershed" (OWOW) process;
- All local governments within the three counties (San Bernardino, Riverside and Orange) are working cooperatively together to manage growth and plan for the water/wastewater infrastructure needed to meet the needs of this rapidly urbanizing watershed;
- Partnerships with industry including dairies, manufacturing, and developers have resulted in creative solutions to local water quality problems (e.g. the Santa Ana brine sewer to the ocean) as well as producing new sources of renewable, cost effective energy;
- Industrial customers throughout the area are planning on using recycled water to reduce costs, ensure reliability, and to be excellent environmental stewards.

The Chino groundwater basin is one of the largest in Southern California. The Chino Basin Watermaster adopted an Optimum Basin Management Plan (OBMP) to protect the water

quality of the basin and to manage the local supplies effectively to the maximum benefit of the local ratepayers. A key element is the expansion of the conjunctive use operation of the Chino Basin to expand the storage and recovery by approximately 300,000 to 500,000 acre feet.

Other key components are the Inland Empire Utilities Agency regional water recycling project to develop new local supply of 100,000 acre-feet per year and the Chino Basin desalters that would develop an additional new local supply of 40,000 acre-feet per year.

The key benefits of the Chino Basin regional "OBMP" water plan are as follows:

Benefits

- *Provide a more dependable local water supply and reduce the likelihood of water rationing during future droughts and the impacts of climate change;*
- *Economic benefits of reliable water supply to industry and provide incentives to attract new industry and jobs in the Inland Empire region;*
- *Environmental protection – reduce wastewater discharges into Santa Ana River by 50 percent through local water recycling and protect Orange County drinking water supplies through implementation of comprehensive lower Chino Dairy area manure management strategy;*
- *Reduce imported water use in the rapidly growing Inland Empire region (upper Santa Ana River Watershed) and thereby contribute in a significant manner to the statewide CALFED Bay-Delta and Colorado River solutions through more efficient use of existing local supplies;*
- *Assist in solving multiple Endangered Species Act problems within the Santa Ana Watershed, the CALFED Bay-Delta program, and the Colorado River/Salton Sea;*
- *Implement a sustainable long-term water resources management program that maintains the salt balance of the Santa Ana River watershed;*
- *Reduce the energy intensity of the region's water supplies, helping to conserve energy and reduce greenhouse gas emissions that are contributing to climate change.*

II Chino Basin "Drought Proofing Strategy"

The IEUA Urban Water Management Plan, adopted in December 2005 and the Chino Basin Watermaster Optimum Basin Management Plan, document the overall strategy for improving the water supply reliability in the Chino Basin area.

- ✓ Water Conservation – 10% savings 35,000 AF
- ✓ Water Recycling – 100,000 AF
- ✓ Local Groundwater Storage and Conjunctive Use – 500,000 AF of new storage
- ✓ Chino Desalter 40,000 AF

- ✓ Stormwater – 25,000 acre-feet of new supplies
- ✓ Renewable Energy and Organics Recycling – Clean energy through biodigesters (using biosolids, dairy manure and food waste), solar power and wind power (goal of 15 megawatts)
- ✓ Water Quality Management – Establishment of Chino Creek Wetlands and Educational Park at IEUA and a continued partnership with Orange County Water District on Prado Wetlands implementation of the Chino Creek Integrated Watershed Plan.

A. Water Conservation- (35,000 acre-feet per year, 10 percent of overall use)

IEUA and its retail utilities are committed to implementing the Memorandum of Understanding (MOU) regarding Urban Water Conservation in California. IEUA is an active member of the California Urban Water Conservation Council (CUWCC). Currently, the Agency is expanding its conservation efforts to promote both water and energy conservation programs to our customers. IEUA's goal is to reduce water demands by 10 percent (35,000 acre-feet per year) through aggressive implementation of customer conservation programs. Innovative programs initiated by IEUA include the Inland Empire Landscape Alliance, in which elected officials from cities and water agencies within IEUA's service area are working to promote outdoor conservation including turf reduction rebates, use of California-friendly native plants and new regional model landscape ordinances that will promote water savings. Other programs include conservation rebates which are offered in partnership with the Metropolitan Water District of Southern California (ultra-low-flow toilets, weather-based irrigation controllers, synthetic turf, efficient sprinklers, water brooms X-Ray recirculation units and other water saving devices), landscape audits, and school education programs including the award-winning Garden In Every School program.

B. Water Recycling (50,000 acre-feet by 2010)

IEUA owns and operates four water recycling plants that produce high quality water that meets all state and federal requirements for non-potable landscape irrigation, industrial uses, and groundwater replenishment. Since 2000 the Agency has spent over \$60 million expanding its recycled water distribution system and currently recycles about 15,000 acre-feet annually. Recently the IEUA Board approved an accelerated implementation plan to increase annual recycled water use to approximately 50,000 acre-feet within the next 3 years by constructing "purple" recycled water pipeline system to hookup existing large customers (schools, golf courses, city parks, groundwater recharge). IEUA's Board has approved a \$140 million budget to expedite the construction of recycled water pipeline distribution system. The accelerated implementation plan was developed through a collaborative process with local cities, water districts, Chino Basin Watermaster and other stakeholders and represents a comprehensive evaluation of the infrastructure needed to maximize recycled water use in the region. In addition, IEUA and local cities have coordinated with developers to incorporate dual "purple" piping into new urban developments to maximize recycled water use for non-potable purposes.

The energy demands to produce and deliver recycled water are less than one third of the energy required to deliver water through the State Water Project. Additional energy savings are included in the plan by building new smaller water recycling plants in the northern part of our service area to provide recycled water to communities (Upland, Fontana, and Rancho Cucamonga) without the need to pump the water to them. The Cucamonga County Water District (CCWD) proposed satellite plant authorized by HR 2919 would be the prototype water recycling plant to reduce energy use of pumping recycled water to the higher elevations along the San Gabriel Mountains.

Approximately 25% of the recycled water will be used for groundwater replenishment within the Chino Groundwater basin to augment the potable water supply. IEUA and Chino Basin Watermaster recently got court approval to expand the artificial recharge of the Chino Basin Groundwater Basin. The plan is to blend recycled water with stormwater and imported water in a coordinated fashion with flood control district to ensure that all water sources are conserved in an optimal manner (targeted goal is an additional recharge of 80,000 acre-feet per year).

C. Local Groundwater Storage and Conjunctive Use (500,000 acre-feet of new storage)

The Chino Basin Watermaster is implementing an Optimum Basin Management Plan to enhance the conjunctive use storage of the Chino Basin. Today MWD has stored over 80,000 AF in the Basin and has funded \$1.5 million in engineer feasibility studies to expand the storage to 150,000 AF. The Optimum Basin Management Program developed over the past two years by the Chino Basin Watermaster would implement a comprehensive water resources management strategy to drought proof the area and enhance the yield of the groundwater basin. The Chino Basin Watermaster has developed a conjunctive use program to store 300,000 – 500,000 acre-feet of imported water in wet years for drought year withdrawal for local, regional and statewide availability. In June, 2003 IEUA, Chino Basin Watermaster, Three Valleys MWD, Western MWD and the Metropolitan Water District executed an agreement for the initial 100,000 acre-feet of storage and recovery projects (\$27.5 million funding from MWD and Calif. DWR). In June 2007 MWD agreed to fund studies to evaluate expanding this storage program.

D. Chino Desalination Projects (40,000 acre-feet annually by 2020)

Historically, Colorado River water (relatively high salinity) and "Route 66" agricultural practices have caused areas of the Chino Basin to have high salts that make the water unfit for domestic uses. To correct this problem and to recover this poor quality water, the Chino Basin Optimum Management Plan recommends implementation of groundwater cleanup projects to pump and treat poor quality groundwater to meet drinking water standards. Additionally, the desalination projects of the lower Chino Basin area will protect and enhance the water quality of the Santa Ana River and the downstream use by Orange County. HR 813 (passed the House on October 22, 2007) would provide authorization under the Bureau of Reclamation's Title XVI program to provide funding for the third Chino desalter and brine line improvements with the SAWPA SARI brine system

recommended in the Southern California Comprehensive Water Reclamation and Reuse Study (USBR, 2003) and the joint MWD/USBR Salinity Management Study (1999). The third phase expansion is projected to cost \$110 million and increase to approximately 40,000 AF.

E. Stormwater (25,000 acre-feet annual average of new stormwater capture percolation)

A critical issue facing the coastal plain of Southern California as the region continues to urbanize and hardscape our landscapes will be how to implement both small scale and larger scale projects for stormwater capture to allow percolation into our groundwater basins. IEUA in coordination with the Chino Basin Watermaster, the San Bernardino County Flood Control District and the Chino Basin Water Conservation District has developed an integrated recharge master plan to optimize the capture of stormwater with replenishment of imported water from MWD and our local recycled water to enhance the storage and recovery of water from the Chino Basin. During the past five years, IEUA has funded construction of over \$50 million in improvements on the Groundwater Recharge Basin.

IEUA is also sponsoring innovative small scale, on-site (neighborhood development) storm water management projects to enhance percolation of rainfall to minimize runoff, reduce contamination of rainwater before it percolates into the ground and to cost effectively reduce flood control requirements while helping the cities and county meet regulatory requirements. This innovative program is being funded in partnership with the CALFED Bay-Delta Program, Metropolitan Water District of southern California, and the Southern California Concrete Association.

III. Climate Change Impacts on California Water Supplies

In the fall of 2006 IEUA collaborated with RAND on a study of the potential affects of Climate Change on the IEUA and Chino Basin area. This work has been recently completed and a Congressional briefing will held on January 31, 2008 to explain the findings of this report. Climate change will affect water supplies in California, but few water-management agencies in the state have formally included climate change in their water-management plans. RAND researchers have worked with Southern California's Inland Empire Utilities Agency to help it identify vulnerabilities related to climate change in its long-term water plans and to evaluate its most effective options for managing those risks. But in summary the RAND research project highlights the critical need to develop more local supplies in California (e.g., water recycling, local groundwater storage and stormwater replenishment programs, implement excellent water use efficiency/conservation programs) to avoid significant water shortages and economic impacts.

IV. Future Issues and Need for Federal Assistance

Southern California does have enormous water problems when you consider the following trends:

- ✓ *The current population is about 18.5 million and will likely double over the 50 years;*
- ✓ *The imported water infrastructure from MWD can optimistically only deliver 2.4 million acre-feet, assuming resolution State Water Project Delta issues and the Colorado River problems are successfully resolved;*
- ✓ *Climate change is expected to impact both amount and timing of future water supplies, increasing the likelihood of shortages during critical times;*
- ✓ *Importing water to southern California requires a large amount of electrical energy, substantially more than the alternative local supplies (recycled water, capturing stormwater, and groundwater recovery of poor quality water);*
- ✓ *The region faces significant shortages unless we develop a local supply strategy.*

The issue for the region as articulated in the MWD Integrated Water Resources Plan adopted in 2004, is to develop a balanced approach to multiple sources of supplies with a clear priority to local resources management and emphasis on less energy intensive uses of water that protect water quality and the wildlife habitats of the region.

Addressing the four questions asked in the letter inviting me to testify.? My response to these questions and suggestions are as follows:

The Committee should continue to examine the opportunities for State and Federal agency partnerships to promote water use efficiency programs recommended in the CALFED Bay-Delta Record of Decision (increase water conservation, water recycling and new local groundwater storage programs to reduce the need for Delta exports consistent with the California Water Plan.

The Committee has developed Views and Estimates in the past few years that strongly supports increased funding for the Bureau of Reclamation's Title XVI Program. For FY 2009 I recommend the Committee support an increase of \$100 million increase in the funding of Title XVI Program expenditures.

A coordinated approach to regional infrastructure planning for water supply, groundwater management, stormwater, wastewater reuse and recycling needs to be integrated on a watershed and regional scale. Regional leadership in the planning of flood control, wastewater and water facilities is an opportunity that can save billions over the next 5 decades as well as help address the serious challenge facing this nation through climate change. The federal government should be a partner in this process helping both to facilitate redirection of federal programs to support local planning and providing funding for projects that contribute to the nation's goals for water security and reduction of climate

change impacts. EPA, Army Corps, US Bureau of Reclamation, the USDA Natural Resources and Conservation Service all have significant activities within the region.

A historic example of a state/federal partnership was the leadership of this committee in 1996 in drafting the CALEED Bay-Delta legislation that provided the authorization.

I would recommend that your Committee hold additional hearings on these opportunities to develop new regional, state and federal partnerships that address comprehensively watershed divide problems

In closing, thank you for the opportunity to testify. If I can provide any additional information on the current and future water problems facing California, please don't hesitate to contact me.

ATTACHMENT 4



Office of the Governor

ARNOLD SCHWARZENEGGER
THE PEOPLE'S GOVERNOR

PRESS RELEASE

02/29/2008 GAAS:112:08 FOR IMMEDIATE RELEASE

Governor Schwarzenegger Outlines Comprehensive Actions Needed to Fix Ailing Delta

Governor Schwarzenegger sent the following letter to Senators Perata, Steinberg, and Machado in response to their unfounded concerns that his administration is "unilaterally" beginning work on a so-called "peripheral canal." Consistent with the extensive work done by his administration over the last two years to gain consensus on a bipartisan legislative solution for a comprehensive plan to upgrade California's water infrastructure, Governor Schwarzenegger detailed his agenda in the following letter:

February 28, 2008

The Honorable Don Perata The Honorable Darrell Steinberg
President pro Tempore California State Senate
California State Senate State Capitol
State Capitol Room 4035
Room 205 Sacramento, California 95814
Sacramento, California 95814

The Honorable Mike Machado
California State Senate
State Capitol
Room 5066
Sacramento, California 95814

Dear Don, Mike and Darrell,

My administration has been working on solutions for addressing California's water supply and the environmental crisis in the Sacramento-San Joaquin Delta for more than two years. As you all have acknowledged during our negotiations on a comprehensive water infrastructure package over the last year, the heart of California's vital water supply system is in jeopardy of collapse without both immediate action and long term solutions to restore the ecosystem and protect water supplies.

I created the bipartisan Delta Vision Blue Ribbon Task Force by administrative action in 2006. The Task Force has issued its Vision and will develop a Strategic Plan to implement the Vision by the end of this year. In its recommendations, the Task Force identified a series of near-term actions that should be taken to protect the estuary, including studying the options for improving water transfer in the Delta. Far from acting unilaterally, my administration has been transparent in working with stakeholders and legislators on identifying both administrative and legislative actions that will be necessary to address the recommendations of the Task Force. As part of that effort, I will continue to negotiate in good faith with legislators on a comprehensive water infrastructure package.

To clarify the administrative actions we are considering as part of a comprehensive solution in the Delta, let me outline some of the key elements under development:

1. **A plan to achieve a 20 percent reduction in per capita water use statewide by 2020.** Conservation is one of the key ways to provide water for Californians and protect and improve the Delta ecosystem. A number of efforts are already underway to expand conservation programs, but I plan to direct state agencies to develop this more aggressive plan and implement it to the extent permitted by current law. I would welcome legislation to incorporate this goal into statute.
2. **Protection of floodplain in the Delta.** The Department of Water Resources (DWR) and other appropriate state agencies will expedite the evaluation and protection of critical floodplains. This action protects people and property, the existing water export system and the Delta ecosystem.
 - **Policy guidance on Delta land use.** The Blue Ribbon Task Force made it clear that changing land use patterns may limit our ability to address critical issues with the existing water export system and the Delta ecosystem. Accordingly, I will ask the Delta Protection Commission to update their Land Use and Resource Management Plan and direct the Governor's Office of Planning & Research and the State Architect to develop model Delta land use guidelines for distribution to local governments.
 - **Levee protection and standards.** DWR is actively involved in efforts to improve our flood protection and levee systems and, as part of this effort, should establish recommended standards for Delta levees.
3. **Multi-agency Delta disaster planning.** DWR, in coordination with the Office of Emergency Services, and other appropriate state agencies will develop and implement an emergency response plan and conduct a multi-agency disaster planning exercise in the Delta.
 - **Contract for emergency response equipment and services.** I will authorize DWR to continue its efforts to obtain equipment and services including barge services, sheet piling and other flood fighting materials to respond to disasters in the Delta. In addition to my previous orders, we must expedite the placement of materials and supplies in and near the Delta, to improve our emergency response capabilities.
4. **Expedite interim Delta actions.** The Resources Agency, DWR, Department of Fish and Game and the State Water Resources Control Board have already begun efforts to help protect and restore Delta habitat and help water users cope with supply interruptions.

I will direct the Resources Agency to expedite the completion of the Bay Delta Conservation Plan (BDCP), including the environmental review and permitting activities. Ongoing Delta actions, in conjunction with these efforts, will provide a foundation to help conserve at-risk species and improve water supply reliability.

5. **Water quality.** While additional storage and improved conveyance can allow greater control

of water flows that improve drinking water quality, more must be done. I will direct the State Water Resources Control Board to develop and implement a comprehensive program in the Delta to protect water quality.

6. **Improvements to Delta water conveyance.** DWR and other appropriate state agencies will soon begin the public process to study the alternatives available for improving the Delta water conveyance system. As part of this study, DWR must coordinate with BDCP efforts to recover at-risk species. DWR must also incorporate the issues of water supply reliability; seismic and flood durability; ecosystem health and resilience; water quality; and projected schedule, cost and funding in their options review, as suggested by the Task Force.

The Task Force recommended that we study a "dual conveyance facility" as a starting point. However I believe we must look at a full range of options for improving conveyance in the Delta.

Accordingly, I intend to direct DWR to proceed with the NEPA/CEQA analysis on at least four alternatives for Delta conveyance. They shall consider the following:

- The possibility of no new Delta conveyance facility;
 - The possibility of a dual conveyance facility, as suggested by the Task Force;
 - The possibility of an isolated facility;
 - The possibility of substantial improvements and protections of the existing water export system, most often referred to as 'armoring the Delta' or a "through-Delta" solution.
7. **Water storage.** DWR will complete the feasibility studies for the CALFED storage projects including Temperance Flat, Sites Reservoir, and the Los Vaqueros expansion. Each of these projects, depending on how they are built and operated, can provide substantial public benefits. Unlike in the past, when local entities built storage facilities for their own benefit and with little state investment, the current deteriorating condition of the Delta and the statewide water system demand public investment in exchange for the public benefit the entire state will realize.

In addition, I will direct DWR to expedite funding for groundwater storage projects throughout the state that will improve water supply reliability.

Please know that I will continue to work with the Legislature and all stakeholders to develop a comprehensive solution to the crisis in the Delta, and I will act on administrative measures in a transparent manner at the appropriate time.

California's history is filled with innovators and problem solvers. In 2006, with Democrats and Republicans working together for a common cause, we added to that legacy by building up our infrastructure. We showed leadership, not for the benefit of our own ambitions, but for the future of the state. That's something that Californians weren't used to, and they responded forcefully, approving all of the bonds. It's time for us to put the state first and add another chapter to the history books. It's time to secure a safe, clean and reliable water supply for the next generation of Californians. We have a great opportunity, and the people are counting on us. Let's not let it pass.

Sincerely,

Arnold Schwarzenegger

**KEY ELEMENTS
OF A STRATEGIC PLAN
TO IMPLEMENT THE DELTA VISION**

Prepared by:

**The Bay Institute
Environmental Defense Fund
Natural Resources Defense Council
Defenders of Wildlife
Sierra Club California**

Submitted to:

Delta Vision Blue Ribbon Task Force

May 2008

**KEY ELEMENTS OF A STRATEGIC PLAN
TO IMPLEMENT THE DELTA VISION**

Executive Summary

- Nine clear, measurable and enforceable targets for the Delta ecosystem, to maintain resident fish populations at levels greater than the 1967 – 1991 period before the ecosystem collapse; restore 325,000 acres of four habitat types in the Delta, Suisun Marsh and adjacent areas; increase Delta outflow to about 65% of spring runoff, and to higher levels in the fall as well; and provide other environmental benefits.
- Enough dedicated environmental water to meet the targets.
- A new Delta Water Master to oversee use of the environmental water.
- A new Delta State Park and National Heritage Area, along with stronger oversight of land use in all areas of the Delta.
- A new water use fee, and specific criteria for financing future projects.

INTRODUCTION

At the heart of the conflict over the fate of the Sacramento-San Joaquin Delta has been an approach to managing the Delta's resources that is intended to maximize water diversion and land conversion while limiting the protection of native species and habitats to regulatory minima and voluntary efforts. By designating the Delta ecosystem as a co-equal value that must function as an integral part of a healthy estuary, and by calling for the incorporation of the constitutional principles of reasonable use and public trust into water resource policymaking and for other improvements in institutions and policies, the Delta Vision seeks to redress the imbalance between protection of the Delta ecosystem and how the Delta is managed for water supply and land use. The Strategic Plan must first and foremost identify the steps necessary to elevate Delta ecosystem protection as a co-equal value.

The Delta Vision Blue Ribbon Task Force has invited interested parties to propose elements for its October 2008 Strategic Plan with emphasis on three areas (appropriately incorporating the principles of reasonable use and public trust in California water policy making; governance and strategic finance; and reliable water for California). Recommendations concerning the third area will be the subject of a separate document. In order to adequately address the first two areas, establish the co-equal values of the Delta ecosystem, and implement the twelve recommendations contained in the November 30, 2007, Delta Vision, the Bay Institute, the Environmental Defense Fund, the Natural Resources Defense Council, Defenders of Wildlife and Sierra Club California propose the following Strategic Plan elements:

Key elements of a strategic plan to implement the Delta Vision

1. Adopting clear, measurable and enforceable targets for protection of the Delta ecosystem as an integral part of a healthy estuary that address abundance of estuarine species, extent of tidally and seasonally inundated habitat, frequency and duration of Delta outflows, and limit entrainment and contaminant effects to levels that do not harm Delta species.
2. Incorporating ecosystem targets that comply with the public trust constitutional requirement, by statute, rulemaking and executive order as appropriate, in the state and local permits and licenses of all water users and land managers.
3. Securing additional water for the environment to help meet ecosystem targets, including a new state environmental water right allowing for the appropriation of water to augment minimum regulatory requirements for fish and wildlife purposes.
4. Creating a new Delta Water Master entity to manage environmental water, beyond the minimum regulatory requirements, and to oversee water operations in the Delta and interbasin transfers.
5. Strengthening regulation of land use in the Delta by creating the Delta equivalent of the Bay Conservation and Development Commission (through modification of the Delta Protection Commission or replacement with a new entity).
6. Working with Delta communities to establish a new Delta State Park and Delta National Heritage Area,

7. Implementing clearly defined "beneficiary pays" criteria within all aspects of the Delta Vision, with particular attention to costly infrastructure projects.
8. Establishing user fees based on the volumetric consumption of water, and other funding sources to support attainment of Delta ecosystem targets and other public policy purposes.

INCORPORATING THE PUBLIC TRUST PRINCIPLE IN WATER POLICYMAKING: ECOSYSTEM TARGETS; PERMITS AND LICENSES; NEW ENVIRONMENTAL WATER

The following section provides details on the first three steps, which are intended to incorporate the public trust constitutional requirement into decisions about resource policy and management: ecosystem targets, their incorporation into state and local permits and licenses, and a new environmental water right.

Last fall, a number of highly respected scholars correctly pointed out to the Task Force that the reasonable use and public trust doctrines are synergistic and reinforcing: "A use of water violative of elements of the public trust is not reasonable." As these scholars stated, the constitutional requirement of "reasonable use" and the even more ancient doctrine of the public trust are twin foundations of California water law. The right to use water is limited to the amount of water reasonably required for the beneficial use to be served. The right does not extend to waste, or to unreasonable methods of diversion. What constitutes reasonable

use must take into account not only the rights of other water users but the broader public interest. Under the California constitution, Art 10, sec 2, no one in this state can have a protectable interest in the unreasonable use of water.

The public trust doctrine provides that the people of California own all of its waterways and lands beneath and that the state government serves as "trustee of a public trust for the benefit of the people." *National Audubon Society v Superior Court* (1983). 658 P.2d 709 (*National Audubon*). The doctrine imposes on the state an ongoing duty to protect "trust resources" which include explicitly fish, aquatic habitats, and even scenic beauty. In practical terms, the public trust means that - as is true under the reasonable use doctrine - no one can obtain a vested right in a use of water that harms trust resources. At best, water rights are burdened with an ongoing examination of the water requirements to ensure the long-term health of trust resources.

National Audubon, decided a quarter century ago, remains the pre-eminent California Supreme Court case on this issue. The court held that the public trust is not simply an affirmation of the power of the state to use water for general public purposes, even the important public purpose of providing drinking water. Rather, the public trust is "an affirmation of the duty of the state to protect the people's common heritage of streams, lakes, marshlands, and tidelands, surrendering that right only in rare cases where abandonment is consistent with the purposes of the trust." Thus, as the professors pointed out, all elements of state government have the duty to protect, preserve and even restore the state's public trust resources, such as fish, habitat and wildlife.

For the purposes of the Delta Vision, the great benefit of *National Audubon* is that it provides a roadmap for integrating long-standing water rights with these concepts of ensuring environmental health. The court declined to hold that all past allocations harmful to trust resources were improper, but strongly confirmed the state's obligation to correct past mistakes regardless of the longevity of water rights. Key to this holding was the court's rejection of the argument that 'vested' water rights preclude the application of public trust or reasonable use principles to an environmental problem. Indeed, the high court reiterated eight separate times within the opinion that no one can acquire vested rights to use water in a manner harmful to trust resources.

So how does the state integrate existing water management and the public trust and reasonable use doctrines? *National Audubon* accomplishes this integration through a weighted balance. The public trust imposes a substantive duty on the State to affirmatively protect fish and other water-related resources "whenever feasible," and must "avoid or minimize any harm" to those resources.

Reasonable use and public trust principles both require that water diversions must be compatible with a healthy environment. Placing an environmental standard as the foundation for water policy is one of the most important ways that Delta Vision's Strategic Plan could incorporate these principles into water management going forward.

In the past, the State has felt constrained even when environmental harm was specifically

the anticipated result of proposed diversions. In 1940, when it issued the water rights permits to Los Angeles that would later be at issue in *National Audubon*, the State Water Resources Control Board (the State Water Board) knew that its actions were going to cause grave harm to Mono Lake. The Board characterized this result as "indeed unfortunate," but stated that "there is apparently nothing that this office can do to prevent" the diversions. *National Audubon*, 658 P.2d at 714, citing Division of Water Resources Decs. 7053 et al. (April 11, 1940).

The way to best incorporate these principles in water policy making and Delta resource management is to adopt specific ecosystem targets and then incorporate them into all relevant permits and licenses.

Targets for protection of the Delta ecosystem as an integral part of a healthy estuary

Viable and Resilient Populations

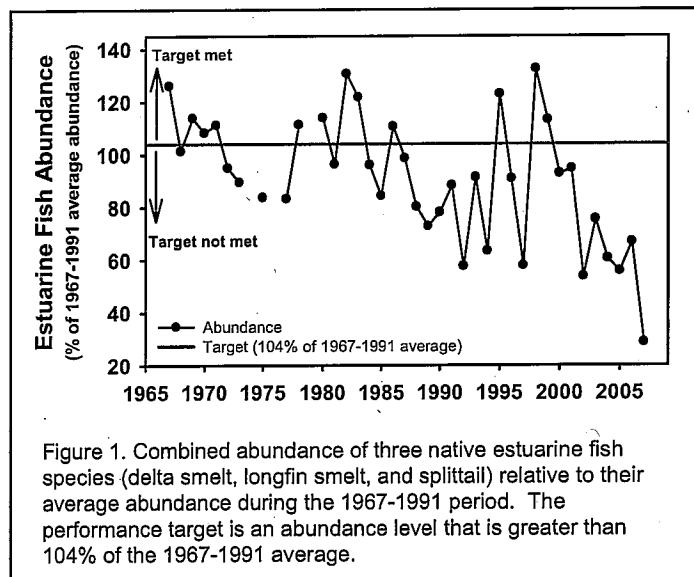
The Delta Vision's overarching goal that the Delta function as an integral part of a healthy estuary requires that it be able to support viable, resilient populations of estuarine species.

Target 1. Restore abundance of estuarine fish species to greater than 104% of average levels measured during the 1967-1991 period.

This performance target measures the combined abundance of three estuarine fish species (delta smelt, longfin smelt, and splittail) relative to their average combined abundance measured for the 1967-1991 period (Figure 1).

These species were selected

because they represent estuary-dependent aquatic organisms with a wide range of life-history requirements. The target level, greater than the average 1967-1991 abundance (or greater than the average plus one standard error, or >104%), represents an abundance level at which estuarine fish populations are viable (i.e., at low risk of extinction) and resilient (i.e., capable of responding to variations in environmental conditions without



collapsing). This target complements but does not replace existing statutory and regulatory targets for Bay-Delta species, including the federal and state requirements to double natural production of Chinook salmon and other anadromous fish species.

Habitats

Three of the performance targets are designed to restore the extent and diversity of physical habitat types and the complexity of channel configurations by restoring specific acreages of tidal marsh, uplands and seasonal wetlands, and floodplains.

Target 2. Restore 80,000 acres of tidal marsh habitat in the Delta and 50,000 acres of tidal marsh habitat in Suisun Marsh.

This performance target measures the total area of vegetated lands with elevations ranging from mean lower low water to mean higher high water that are fully exposed to tidal action and are connected to the other tidal marshes, the Delta and/or the estuary by waterways. These habitats support estuarine and migratory species, increase primary and secondary productivity in the estuary, export of carbon and food organisms to the Delta and estuary, and improve water quality by filtering contaminants from surface runoff and tidally exchanged waters. More than 90% of historic tidal marsh habitat has been lost in the Delta and Suisun Marsh; therefore the target levels represent the total areas of land with the appropriate elevation in each region. The state already owns significant amounts of land in the Delta that could be restored as tidal marsh.

Target 3. Restore 130,000 acres of terrestrial grasslands and seasonal wetland complexes in the Delta and 5000 acres in Suisun Marsh.

This performance target measures the total area of lands in the Delta and Suisun Marsh with elevations above mean higher high water that support terrestrial grasslands and/or season wetland complexes. These habitats support wildlife, improve water quality by filtering contaminants in surface runoff, and provide accommodation space for sea level rise; therefore the target levels represent the total areas of land with the appropriate elevation in each region.

Target 4. Restore 60,000 acres of floodplain habitat to seasonal inundation for a minimum of 45 consecutive days at least once every two years.

This performance target measures the total area of lands adjacent to Delta tributary rivers with elevations above mean higher high water that are inundated by river flow during the spring (February-May). Seasonally inundated floodplains provide spawning habitat for splittail (one of the target estuarine fish species), an enhanced migration corridor for juvenile salmonids, robust primary and secondary productivity for export to the Delta, and improved flood protection in adjacent and downstream areas. The target season and acreage and duration levels are designed to support these objectives.

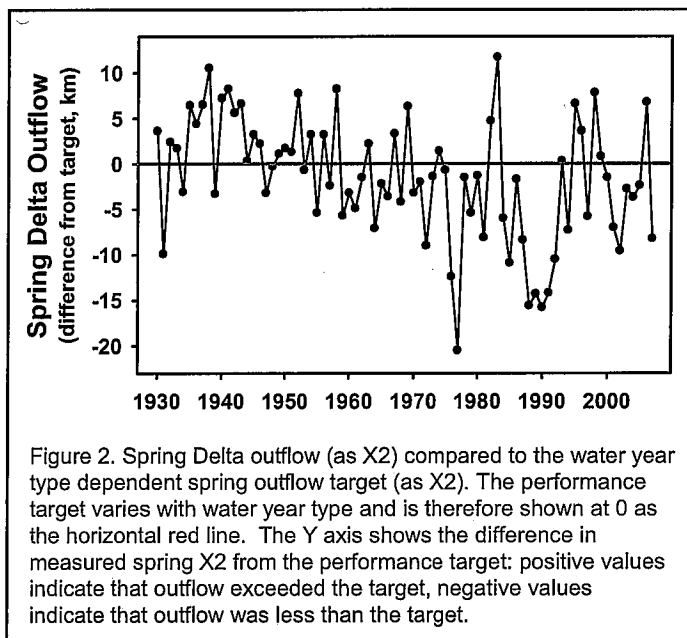
Ecological Processes

Ecological processes in the Delta include transport of materials (e.g., by flow and tidal exchange across connections between different habitat types), primary and secondary productivity, seasonal variability in environmental conditions (e.g., flow, location and

area of low salinity habitat, temperature), and disturbance (e.g., flood events). Some of these processes are provided by the natural function of specific habitat types (e.g., tidal marshes or floodplains) but others are tightly linked with water management operations that control freshwater inflows to the estuary. Two of the performance targets are designed to address seasonal freshwater inflows and the resultant estuarine open water habitat quantity and quality.

Target 5. Restore spring Delta outflow to provide low salinity habitat in Suisun Bay, with average February-June X2 values ranging from less than or equal to 70 km from the Golden Gate in critically dry years to less than or equal to 58 km in wet years.

This performance target measures the volume of Delta outflow (or freshwater inflow into San Francisco Bay) and the resultant location of low salinity, open water habitat during the spring (February-June; Figure 2). The ecologically important spring



season is when upstream dam and Delta water export operations have had the greatest effects, reducing spring outflows by more than 50% in many years. The water year type dependent target levels are based on statistically significant relationships between spring

outflow and estuarine fish population abundance and designed to provide conditions that previously supported estuarine fish populations at levels that would meet Target 1 by increasing Delta outflow to about 65% of unimpaired runoff.

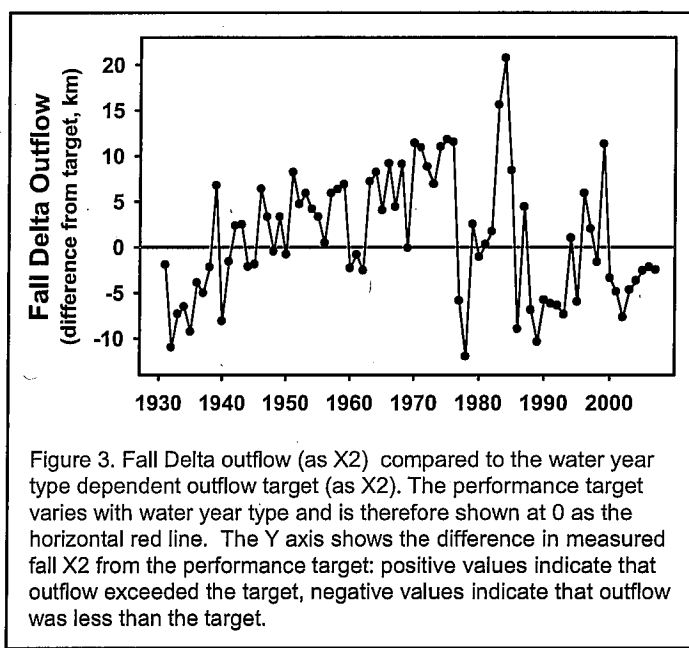
Target 6. Restore fall Delta outflow to provide low salinity habitat downstream of the Sacramento-San Joaquin River confluence, with September-November average X2 values less than 80 km in all years except critically dry years.

This performance target

measures the volume of freshwater Delta outflow (or freshwater inflow into San Francisco Bay) and the resultant quantity and quality of low salinity, open water habitat during the fall (September-November; Figure 3). Declining freshwater outflows during this season are correlated with degraded open water habitat conditions and declines in delta smelt population abundance. The water year type dependent target level is designed to provide good open water habitat quality.

Stressors

The Delta ecosystem is adversely affected by both anthropogenic (e.g., entrainment, pollution) and biological stressors (invasive species). Entrainment and pollution are



directly responsive to management actions but the prevalence of invasive species in any ecosystem is as much an indicator of degraded habitat conditions resulting from loss of physical habitat, altered flow regimes, and impaired water quality as it is a driver of ecological problems. Therefore, carefully designed management and restoration actions to meet habitat, ecological processes, and water quality performance targets will also function to reduce the impacts of invasive species. Three performance measures address entrainment and contaminants.

Target 7. Limit annual entrainment losses of estuarine fish species to less than 5% of the population and to less than 2% for migratory fish species.

This performance target measures the percentage of the populations of estuarine and migratory fish species that are entrained into water diversions located in the Delta and Suisun Marsh. Entrainment of estuarine and migratory fishes at the more than 2000 water diversions in the Delta and Suisun Marsh can be a significant contributor to population declines in some years. The target levels are designed to reduce entrainment mortality to levels that are proportional to species population size and low enough to not cause the populations to decline.

Target 8. Limit total ammonia concentration to <0.07 mg/L and unionized ammonia concentration to <0.01 mg/l in Delta waters.

This performance target measures the concentrations of total ammonia and unionized ammonia in Delta waters. High concentrations of total ammonia can inhibit

phytoplankton production and high concentrations of unionized ammonia are directly toxic to fishes. The target levels are set at levels that eliminate these adverse effects.

Target 9. Reduce discharge of contaminants into Delta waterways and tributary rivers so that <5% of estuarine and anadromous fish populations exhibit evidence of toxic exposure and there are zero incidents of fish kills.

This performance target measures the prevalence of toxic contaminants in waters and sediments of the upper estuary, Delta, and tributary rivers by evaluating contaminant effects in fish species that are frequently and regularly sampled in the system. The target levels are designed to prevent incidents of direct mortality from contaminants and to reduce contaminant discharges to levels where only a small fraction of resident and migratory fish populations are exposed and/or affected.

More detail on the conceptual framework, specific rationales, and strategies for implementation of the ecosystem targets is contained in Attachment 1 (The Bay Institute, *Targets for protection of the Delta ecosystem as an integral part of a healthy estuary*).

Incorporating Ecosystem Targets into State and Local Permits and Licenses

The Delta ecosystem targets must drive decision-making about water policy and land use.

To that end, the Strategic Plan should propose that:

1. The legislature should adopt these targets by statute as requirements to be incorporated in all relevant state and local permits and licenses, and as objectives for all relevant state planning and management activities.
2. The State Water Board should review and revise all relevant water rights permits, waste discharge requirements, and other relevant permits and licenses to comply with the appropriate ecosystem targets.
3. All state and local agencies with authority over land use in the Delta should review and revise all relevant general plans, permitting approval criteria, and pending permits and licenses to comply with the appropriate ecosystem targets.

Securing and Managing Additional Water for the Environment, Including a New Environmental Water Right

The current allocation of water for environmental purposes has not been sufficient to prevent collapse of the Delta ecosystem. While a number of factors are implicated in this collapse, the long-term, radical alteration of hydrologic patterns and decrease in Delta outflow under most conditions has been a primary driver of habitat degradation, rendering the Delta more vulnerable to secondary factors that would not be as likely to adversely affect a healthy estuary.

The ecosystem targets proposed above include several that will provide high quality hydrological conditions for estuarine species and habitats. For a variety of reasons, however, complying with these targets must be combined with the dedication of additional water supplies for Delta ecosystem protection that can be used in a flexible,

adaptively managed fashion in order to augment baseline regulatory protections. These additional water supplies can be provided under a new environmental water right and/or agreements that ensure environmental control over existing and new water supply infrastructure.

First, changes in operations and in storage and conveyance capacity in and upstream of the Delta, and in areas exporting water from Northern California, can undermine the protections afforded by any set of regulatory requirements or other targets, as evidenced by the recent shifts in the timing and amounts of export pumping and in the capacity to store exported water, which have played a major role in the pelagic fish population collapse. New environmental water would be used to avoid or offset such shifting impacts. Second, environmental conditions in the Delta are highly volatile as a result of both the accelerating effects of global warming and depressed population levels of native species. Episodic events that are not easy to predict may have a significant impact on the viability of estuarine species. New environmental water would be used to rapidly respond to emerging problems and fill gaps in the baseline regulatory requirements and other targets. Third, the amount of water currently dedicated to flexible environmental use under the Central Valley Project Improvement Act and the Environmental Water Account has been relatively trivial compared to the amount of water extracted from the Delta ecosystem and the amount of water needed to improve habitat conditions. New environmental water, if sufficient in magnitude, would allow for large-scale improvements in hydrological conditions for estuarine species on a real-time basis. In

summary, new environmental water would serve as a buffer between baseline protections and emerging, episodic and shifting impacts on estuarine species.

For these reasons, the Strategic plan should propose that:

1. The legislature should create a new environmental water right, i.e., a water right that allows for the appropriation of water for Delta ecosystem protection in order to augment minimum regulatory requirements.
2. Other arrangements should also be made to secure additional environmental control over existing and new water supply infrastructure.
3. A share of water stored and conveyed throughout the Delta watershed sufficient to achieve ecosystem targets (in combination with regulatory requirements) and provide an adequate buffer above attainment of targets should be secured to endow the new environmental water right and/or implement other environmental water arrangements. This environmental water should not be reliant on purchased water, since funding and purchase prices fluctuate from year to year, and long-term voluntary agreements are difficult to arrange.
4. The new environmental water should be managed by a new Delta Water Master (see below).

GOVERNANCE AND STRATEGIC FINANCE

This section provides greater detail on steps 4 through 8 as described on page 4.

Delta Water Master

Delta water operations – in-Delta diversions and interbasin water transfers – are managed on a real-time basis by water agencies primarily concerned with maximizing water deliveries while minimizing environmental compliance obligations. Regulators and resource agencies may set the baseline terms of compliance in permits but have limited or no ability to make direct decisions on a real-time basis regarding operational changes to avoid adverse habitat conditions or provide improved habitat conditions.

The creation of a new entity to act as a Delta Water Master (DWM) to manage a new environmental water right and oversee water operations in the Delta and interbasin transfers would correct this imbalance and elevate the place of the Delta ecosystem as a co-equal value in water management. In effect, the DWM would be able to flip the switches and turn the dials, just as water project operators do to maximize project deliveries today. The proposed DWM is the “functional equivalent” of the proposed Delta Water Management Commission that was included in our July 2007 recommendations to the Delta Vision Blue Ribbon Task Force.

The DWM would have the authority to:

1. Make releases from water stored or otherwise controlled by the new environmental water right to augment regulatory requirements. These releases could be used to directly improve habitat conditions or to offset reductions in diversions.
2. Require reductions in diversions and exports within the Delta and throughout its watershed to improve inflows, outflows, and water quality as needed.
3. Approve operational decisions by water project agencies involving interbasin transfers.
4. Operational decisions made by the DWM may be made in advance or in real time in response to biological and hydrological monitoring.
5. Administer fees imposed by the State Water Resources Control Board and/or directly impose fees.
6. Coordinate the activities of state and federal agencies that have legal responsibilities for fishery and water quality protection, including but not limited to the California Department of Fish and Game, the United States Fish and Wildlife Service, the National Marine Fisheries Service, and the U.S. Environmental Protection Agency. (This coordination function is not intended to have any effect on the existing statutory obligations of these agencies).

For more ideas on how the DWM could function, see Attachment 2 (Environmental Defense Fund, *Increasing the Flexibility of Environmental Water Supply Operations in the Delta*).

There are many ways to structure the DWM. Primarily, it is critical that a streamlined entity be created that would effectively and efficiently coordinate all agencies with legal

responsibilities for protecting water quality and natural resources in the Delta. Under one potential approach, the DWM entity would be managed by an executive director with the authority to hire sufficient staff to perform the functions described above. The executive director would be appointed by the State Water Board, and all decisions of the DWM would be subject to the concurrence of the Board (or its executive director). Under an alternative approach, the DWM entity would be overseen by a board consisting of members filling specific positions with expertise in Delta agriculture; Delta communities; export water use; commercial and recreational fishing; communities downstream of the Delta; environmental justice; water quality; public interest environmental advocacy; and aquatic biology. The members would be appointed by the Governor (5), the President Pro Tem of the Senate (2) and the Speaker of the Assembly (2). Their authority would be delegated from the State Water Board, and their decisions would be subject to the oversight and concurrence of the State Board.

The DWM would have the authority to impose new fees and/or would administer fees collected by the State Board, which already has the authority to impose fees. These fees would be imposed in the following areas:

Ecosystem Restoration: A fee for ecosystem restoration is required to provide more complete mitigation for the system-wide impacts of water diversions in the watershed. The fee should be imposed on all water diverted from the watershed. However, this state fee should take into account the contributions made to the Central Valley Project Restoration Fund for a system-wide mitigation program. The goal of the ecosystem restoration fee is to

create an equitable, watershed-based, state Bay-Delta restoration fund parallel to that created for the Central Valley Project by the Central Valley Project Improvement Act. These funds should be awarded by the DWM to restoration program managers such as the Department of Fish and Game.

Delta Flood Management: A fee on water exported from the Delta should be created to provide funding for flood management efforts in the Delta that produce direct reliability benefits for the exporters. These funds should be awarded by the DWM to flood management entities such as the Department of Water Resources Division of Flood Management to implement portions of the State Plan of Flood Control (currently under development) that provide direct reliability benefits for the exporters. This fee should be designed to ensure that the flood management program is consistent with ecosystem restoration goals.

Science: A fee to provide ongoing, reliable support for the existing Bay-Delta science program would allow the state to better understand the impacts of water management and allow more effective management over time.

DWM Management: Fees should be imposed to fund the activities of the DWM. These activities will include operational costs, staffing costs, and potentially costs of storing and releasing environmental water. The DWM will not buy or sell water supplies in the normal course of business, however, so it is not expected that fees will be collected for this purpose.

Land Use Regulation

In our July 2007 recommendations, we proposed the creation of a Delta Conservation and Development Commission with authority to regulate land use, protect and restore habitat, and address water quality, on the pattern of the existing Bay Conservation and Development Commission. (This entity could perhaps also be established by modifying the authority of the existing Delta Protection Commission). This element should be included in the 2008 Strategic Plan.

Special Status for the Delta

In our July 2007 recommendations, we proposed state and federal designations for the Delta designed to strengthen the “sense of place” in the Delta, increase public awareness of this unique resource, and drive efforts to acquire, manage and restore habitat areas in protected zones throughout the Delta. Specifically, the Strategic Plan should propose that:

1. The state should, working with Delta communities, create a Delta State Park. This park would also serve the purpose of unifying the different state property interests in the Delta. The state is already an extensive land owner in the Delta. Over time, particularly as restoration efforts proceed, existing state land (e.g. Sherman Island) and additional lands that will be purchased by the state to facilitate ecosystem restoration should be unified as separate units in a single state park. The Sonoma Coast State Park provides an example of a state park composed of several different units, but retaining a single identity and unified management.

2. The federal government should, working with Delta communities, designate the Delta as a National Heritage Area. This designation would reflect the broad cultural, historic and natural values of the Delta. It is likely that most public purchases in the Delta in the near future would be made with state, not federal funds. This fact makes the NHA designation particularly appropriate, as the NHA model is not based on federal ownership and management. The NHA designation, however, could make a significant contribution to increasing public awareness of the Delta. See <http://www.nps.gov/history/heritageareas/FAQ/INDEX.HTM> for more information.

Strategic Finance

Implementing an effective Strategic Plan that successfully addresses a full range of Delta issues will require an extremely large financial investment totaling tens of billions of dollars over the life of the plan. Securing that funding will be a major challenge. Meeting that challenge should not wait until after the plan is written.

Issues related to economics and finance have proven to be important challenges for other water policy efforts in California. The CALFED Bay-Delta Program stumbled over the task of developing a realistic financing plan. Development of a detailed financing plan was not begun until years after the CALFED Record of Decision (ROD) was finalized. The legislature pressured the CALFED Program to develop a financing plan to guide the implementation of the ROD. The CALFED Program did some good work in this area, but the plan was never finalized. As a result, key elements of the CALFED ROD, such as the levee program, were dramatically underfunded. The failure of the CALFED Program regarding

financing contributed to the legislature's loss of confidence in the program and its ultimate failure. The legislature is currently considering SB 1102 (Machado), which would disband the CALFED Program. In 2006, the Governor proposed the creation of a Resource Investment Fund (RIF) to finance water management programs. The RIF proposal failed to win approval in the legislature, in large part due to opposition from water users who did not want to pay into a RIF without knowing how those funds would be spent.

In short, the CALFED ROD was, in some ways, an investment plan without a finance plan. On the other hand, the RIF was a finance plan without an investment plan. With a price tag in the tens of billions of dollars, an effective Delta Vision implementation plan must address both what investments are needed, and how they will be financed. Economics and financing will be central to the success or failure of the Delta Vision strategic plan. Given the scope of this effort, a focus on economics is essential to ensure that the plan is as cost-effective as possible. An early focus on financing is also essential to maximize the chances that the plan will be successfully implemented, rather than merely sit on a shelf gathering dust.

These observations have led to the following initial conclusions, which have shaped our subsequent recommendations.

Businesses and water users seek the most cost-effective solutions, but agencies have not always done so. Water users are very focused on the cost-effectiveness of any benefits they might receive from an investment they are considering. However, policy discussions in the legislature and state and federal agencies regarding potential elements of a comprehensive

Delta plan frequently fail to address the issue of cost-effectiveness. Without a focus on the cost-effectiveness of key elements of a Delta Vision plan, there is a greater risk that water users will be unwilling to invest in that plan. The state does have a successful model that Delta Vision can build on. For example, the state's focus on Integrated Regional Water Management in the last several years has helped the state work collaboratively with local agencies to direct state investments to cost-effective strategies that local agencies are eager to invest in.

In the future – unlike the past – most of the funds to address issues related to the Bay-Delta, particularly to ensure adequate future water supplies, are expected to come from water users, not federal or state general funds or bonds. For example, in testimony before the Senate Committee on Natural Resources and Water on March 11, 2008, the Legislative Analyst reported that “local matches and other local direct expenditures likely outpace state funding for water conservation” and that “local funding for groundwater management far exceeds state local assistance funds by more than 2 to 1.” While it is a mark of progress that local beneficiaries are expected to pay for more than two-thirds of the cost of groundwater development, we generally believe that beneficiaries should pay for 100% of benefits received.

Economics and finance will play an important role in the transition from a focus on developing traditional water projects to a focus on improved management and efficiency.

We do not mean to suggest that there will be no significant infrastructure investments in the future. However, there is remarkable agreement around the conclusion in the California

State Water Plan Update (2005) that the new water supplies needed to meet California's future water needs will come largely from efficiency, water recycling and improved groundwater management (e.g. groundwater clean-up), not from new surface storage. Almost by definition, effective efficiency programs must focus on cost-effectiveness and financing issues. Internalizing costs are an important part of that process. The energy field has undergone this transition in the last 20 years, resulting in a much sharper focus on cost-effectiveness and user-financing. Environmental limits on the historic pattern of steadily increasing Delta diversions, along with the pressure of global warming on water systems, will, over time, increase the need to focus on economics and finance. Simply put, California is no longer in an era of cheap, abundant water.

With these conclusions in mind, we offer the following recommendations regarding finance and economics.

An integrated approach to economics and financing should be developed as early as possible.

Economics and financing are not merely implementation issues to be considered at the end of the process. They should be integrated into the planning process from the start, because they will likely shape the substance of the plan. For example, an early focus on financing will lead potential funders to focus on the cost-effectiveness of proposed projects. The result will be a more effective, less costly plan that is far more likely to be implemented.

A meaningful "beneficiary pays" approach is key. As stated above, water user funding will likely exceed state and federal funding in many areas of the Delta Vision plan. Given this

fact, and given that water users will be unwilling to pay for benefits that their neighbors would receive, it is essential that the Strategic Plan include a meaningful “beneficiary pays” approach to financing. Our remaining recommendations will focus largely on the elements of such an approach.

For example, however Delta conveyance issues are resolved, it is anticipated that levee repair will cost many billions of dollars. Repairing levees would benefit highways, railroads, power transmission, shipping, local communities, and many other interests. To ensure fairness and cost-effectiveness, the strategic plan should identify mechanisms for distributing the costs of levee repair in a rational and equitable way.

The focus should be on cost-effectiveness, including the full cost of protecting environmental resources. There are many ways to meet our future water needs (e.g. efficiency, transfers, conjunctive use, water recycling, traditional water projects.) Likewise, there are different ways to improve flood management in the Delta (e.g. land use decisions, flood bypasses, levee improvements). A focus on cost-effectiveness will help decision-makers select among alternatives and increase the willingness of water users to invest in that plan. Any public funding for water supply should be focused on cost-effective water strategies that are aligned with the priorities of water agencies for investing their own funds. A focus on cost-effectiveness necessarily requires that water strategies are designed in a process that includes a careful evaluation of competing approaches.

Public funds should be dedicated to achieving well defined public benefits. It is not enough merely to promise public benefits. The Strategic Plan should clearly define what constitutes a public benefit. For example, mitigation is not a public benefit. Increasing the reliability of supply for one set of water users is not a public benefit. This step is essential to equitably apportion costs.

Proposals to develop new storage capacity, operated to provide environmental benefits, are essentially mitigation, as they are an admission that operation of existing facilities has over-manipulated the natural hydrograph. The cost of developing any new storage capacity dedicated to the environment should appropriately be borne by user fees rather than taxpayer funds or general obligation bonds. This will ensure that the price of water will better reflect the cost of extracting it for consumptive use.

Unfortunately, there is a long history of unfulfilled promises of public benefits from water projects. Therefore, the Strategic Plan should recommend the creation of effective assurances that provide guarantees that public benefits will be achieved. Water projects have routinely written water contracts with water contractors. These contracts are intended to provide water users with some predictability regarding the allocation of water supply from a particular project. However, water projects have generally not made similar commitments regarding the public benefits that are used as justification for public funding. To the extent that state or federal funds are invested in water projects in the future, as a result of promised public benefits, new enforceable mechanisms should be required that provide some assurance that public benefits will be achieved. These assurances can take several forms:

- Enforceable regulatory commitments.
- Enforceable water efficiency and recycling targets to ensure reasonable use,
- Contracts, including private enforcement agreements and commitments in bonds.
- Governance structures, including ownership interest.

Designing a “beneficiary pays” financing approach for large infrastructure projects. A careful approach is particularly important for large infrastructure projects, because of potential environmental impacts, the large amount of funding required, and the risk of stranded investments in the planning phase if needed financing for implementation fails to appear. Specifically, the Strategic Plan should condition the consideration and selection of any large infrastructure project on the following:

- Requiring a completed finance plan as a precondition for design and construction phases of a large capital project.
- Requiring local agencies to prepare a finance plan to pay the local share of a capital project.
- Requiring participation from potential beneficiaries in funding for initial studies.
- Establishing a clear “without project” baseline from which to measure project benefits.
- Assigning cost shares proportionally to expected benefits. As stated above, public benefits of mitigating project impacts should be subsidized by water user fees.

Learning from California's pioneering energy and climate programs. The Delta Vision Task Force should consider the approach to economics and finance in California's energy and climate programs. We recommend that the Task Force consider incorporating the following concepts in the implementation plan:

- The creation of a loading order and public goods charge. These policy tools guide energy investments to cost-effective solutions and provide use-based financing. They have played a major part in California's dramatic progress on energy efficiency. (See Natural Resources Defense Council, *Transforming Water Use: A California Water Efficiency Agenda for the 21st Century*, previously submitted to the Task Force.)
- The energy benefits of water conservation and other tools that could increase regional self-sufficiency could provide a significant source of new funding.
- The carbon sequestration benefits of wetlands restoration in the Delta, particularly on subsided Delta islands, could provide an additional source of funding.

Create a system of equitable user fees to internalize externalities. User fees are essential to ending the "free rider" syndrome and ensuring that all users address impacts to which they contribute and support programs from which they benefit. There are many examples of such fees. (e.g. California's commercial salmon fishermen purchase a salmon stamp to support the health of that fishery.) The Strategic Plan should propose a carefully designed water use fee.

A water user fee should be primarily based on volume and applied to all water diverted within the Bay-Delta watershed for consumptive use on farms and in cities. It may also be appropriate to incorporate diversions for hydropower as part of the water user fee.

For example, Delta Vision has acknowledged that all water users in the watershed contribute to the degraded state of the Delta ecosystem. Granted, some water projects are a larger cause than others. However, all water users should contribute to the effort to restore the Delta environment. The Central Valley Project does collect a user fee for a system-wide program to mitigate for the impacts of the project. Other water users in the watershed, however, contribute little or nothing to address Delta issues. User fees would be an important complement to public funding for this effort and are likely to prove to be essential to the long term success of any Delta restoration effort.

Similar user fees could be developed to provide support for Delta flood management from the export water users who depend on Delta levees. Likewise, a user fee could be designed to support an ongoing science program for the Bay-Delta ecosystem. (See recommendations above regarding the Delta Water Master).

Use fees must be designed carefully to tie fees to specific impacts and benefits. Likewise, fees must be carefully designed to address the risk that the general fund deficit could result in pressure to divert revenue from these user fees to other purposes. A system of user fees must not be allowed to become a de facto tax, providing revenue for the state's general fund. (This recommendation is also discussed in our governance recommendations.)

Look for opportunities to reduce water subsidies that increase pressure for diversions in the Bay-Delta watershed. Water resources throughout the Bay-Delta watershed are substantially over-allocated. Moving away from historic water subsidies could be an important part of a Delta strategy. For example, expiring CVP water contracts provide an opportunity for the Bureau of Reclamation to move more toward realistic cost- and market-based pricing. Reducing such subsidies could provide increased incentives for users to invest in efficiency and decrease pressure on the Delta.



December 10, 2007

Ms. Sammie Cervantes
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VIA ELECTRONIC AND U.S. MAIL

Re: Comments on the Draft Supplemental EIS/EIR for Extending the Environmental Water Account and OCAP Consultations

Dear Ms. Cervantes:

We are writing on behalf of the Natural Resources Defense Council ("NRDC") and its more than 120,000 members in California with regard to the draft supplemental EIS/EIR ("DSEIS/EIR") for the Environmental Water Account ("EWA"). The DSEIS/EIR proposes to extend the existing EWA program, which is currently set to expire at the end of 2007, for another four years, through 2011. The U.S. Bureau of Reclamation and the California Department of Water Resources, the co-lead agencies for the DSEIS/EIR, propose to take this action without providing any analysis of how the EWA has functioned since its inception in 2001 or whether the EWA has succeeded in achieving its stated fish protection purposes. In fact, the EWA has *not* functioned as envisioned and, by placing artificial restraints on the amount of water ostensibly available for fish protection, has contributed to the *decline* of imperiled fish in the Delta, most of which are in worse condition today than they were in 2001. For these reasons, we urge the agencies to discontinue the failed experiment of the EWA, and to devote the taxpayer resources currently dedicated to the EWA to actions that could provide a real benefit to imperiled fish.

In previous biological opinions on the joint operations of the Central Valley Project and State Water Project (i.e., the "Operating Criteria and Plan" or "OCAP"), the agencies have considered the EWA a central feature to mitigate the harmful impacts of the projects on listed fish. The Bureau has reinitiated consultation on those OCAP biological opinions, and those reconsultations are ongoing. Apparently, the agencies have not yet defined the "project" for this reconsultation and it is unclear whether the agencies are contemplating including the EWA in the new project description. Because the EWA has failed to function as a fish protective measure and should not be considered an effective mitigation or conservation tool in the new biological opinions, we seek consideration of these comments in those ongoing consultations as well. Likewise, we request that this information be incorporated, by DWR and DFG, into efforts to comply with the requirements of CESA.

I. THE EWA HAS NOT FUNCTIONED AS ENVISIONED

There is no doubt that in past years the water promised for fish protection through both the Environmental Water Account and the CVPIA (b)(2) account has been significantly less than what was promised in the CALFED ROD. *Finding the Water: New Water Supply Opportunities to Revive the San Francisco Bay-Delta*, Environmental Defense, 2005 (appended as Exhibit 1). From 2001-2004, the EWA provided only 29% on average of the expected 195,000 acre-feet of operational assets. *Id.* at 12-13. Collectively, the EWA and b(2) have contributed as much as 500,000 acre-feet *less* water per year towards fish protection and restoration than anticipated in the CALFED ROD. These shortfalls have occurred while exports from the Delta have reached record high levels and the ecosystem has continued spiraling downward. Clearly, the EWA experiment has not performed as planned.

The failure of the EWA to function as envisioned is epitomized in the failure of the agencies to invoke Tier 3 this year – the intended backstop for any shortfall in EWA assets. EWA Tier 3 was supposed to ensure that if EWA was underfunded or failed to perform as anticipated (both of which have happened), sufficient water would be provided to ensure no jeopardy to listed fish. As explained in the Tier 3 Protocol, a copy of which is appended hereto as Exhibit 2:

As part of the MSCS Conservation Agreement and the FWS and NMFS biological opinions, the CALFED agencies have provided a commitment, *subject to specified conditions and legal requirements*, that for the first four years of Stage 1, there will be no reductions, beyond existing regulatory levels, in CVP or SWP Delta exports resulting from measures to protect fish under FESA and CESA. *This commitment is based on the availability of three tiers of assets:*

...
Tier 3 is based upon the commitment and ability of the CALFED Agencies to make additional water available should it be needed.

...
Tier 3 is a fail-safe device, intended to be used only when Tier 1 and Tier 2 are insufficient to avoid jeopardy to the continued existence of an endangered or threatened species.

...
The State and Federal Projects will be responsible for making preparations for the activation of Tier 3.

(Emphasis added). This language makes clear that the assurances provided under CALFED, and the ESA and CESA compliance of the EWA, were dependent upon the existence and availability of these Tier 3 assets.

Unfortunately, when the time came to call upon this Tier 3 “fail-safe”, the agencies failed to trigger it, ensuring that listed species rather than water users would suffer the consequences of the failure of the EWA to live up to its stated purpose. There can be no question that Tier 1 and Tier 2 have been and are insufficient to avoid jeopardy to the threatened delta smelt. A federal court held in May of this year that the “delta smelt is indisputably in jeopardy as to its survival and recovery.” *NRDC v. Kempthorne*, Order on Summary Judgment at 119 (May 25, 2007). This finding echoes the findings of several expert fisheries biologists, including staff of many

state and federal agencies. *See, e.g.*, DSWG Briefing Statement (May 15, 2007) (“the species has become critically imperiled and an emergency response is warranted”) (attached hereto as Exhibit 3); Statement Presented by Ryan Broddrick, Director, CDFG, to House Subcommittee on Water and Power (July 2, 2007) (“it is DFG’s position that actions must be taken to protect as many individual smelt as can be through manipulation of the water projects. Each reproducing organism is important to the survival of the species.”) (appended hereto as Exhibit 4). Despite these findings and the continued take of large numbers of delta smelt at the Project pumps this past summer, *see* delta smelt May, June and July take tables (appended hereto as Exhibit 5), the Project agencies obstinately refused to invoke Tier 3.

Inexplicably, the DSEIS/EIR makes no mention of this breakdown of the EWA’s “fail-safe”, nor does it describe or analyze the historical shortfalls of the EWA or the program’s failure to function as envisioned. These shortcomings are far more relevant to the foreseeable impacts of extending the program than any of the purely hypothetical modeled impacts contained in the DSEIS/EIR. The DSEIS/EIR must be revised to address these issues. Further, these historical realities belie the statement in DSEIS/EIR that “[i]f pumping would be likely to put at risk the continued existence of a species listed as endangered or threatened under the Endangered Species Act (ESA), the Project Agencies would curtail pumping even if purchases already totaled 600,000 acre-feet and all assets were used.” DSEIS/EIR at ES-5. This is precisely the situation that presented itself to the Project Agencies this summer, and the agencies failed to curtail pumping once EWA assets were depleted even though continued pumping threatened the continued existence of the delta smelt.

Moreover, the DSEIS/EIR seeks to utilize the ESA/CESA process for coverage of the EWA initially established in the CALFED ROD, without addressing any of these fundamental failures of the process to operate as envisioned and which were essential to the CALFED analysis. *See generally* DSEIS/EIR Appendix C.¹ For example, Tier 3 no longer exists as a viable “fail-safe device.” Yet, the CALFED assurances were explicitly “based on the availability of three tiers of assets.” Tier 3 Protocol. The DSEIS/EIR makes passing reference to this change, obliquely noting that “[b]ased on current circumstances, these three tiers are no longer an accurate way to describe EWA assets.” DSEIS/EIR at 2-4. But the document fails to acknowledge the implications of omitting this critical “fail-safe device” or to describe the replacement structure of the EWA going forward.

In short, the DSEIS/EIR fails to adequately describe the project to decisionmakers and the public or to disclose the environmental impacts associated with the policy choice of extending the EWA. The document should be revised to correct these shortcomings. We believe that an accurate description and assessment of the EWA will demonstrate that the program should not be extended.

¹ The DSEIS/EIR also fails entirely to discuss the state court decision finding that DWR lacks the necessary CESA coverage for operation of the SWP, which also likely impacts the CESA analysis in Appendix C. It is unclear, for example, how EWA assets pumped through the SWP facilities at Clifton Court forebay and Banks pumping plant have CESA take authority when the court found that the SWP lacked any take authority for its pumping operations. The DSEIS/EIR must be revised to address this issue.

II. THE EWA HAS LIMITED, RATHER THAN EXPANDED, THE AMOUNT OF WATER AVAILABLE FOR IMPERILED FISH

Since shortly after the first EWA ROD was signed in 2004, the program has been used as an excuse by the agencies to deny needed water to imperiled fish rather than to help protect and recover imperiled fish. For example, in February 2005, when delta smelt populations were at then-record low levels, fishery biologists recommended that exports be curtailed to reduce entrainment. However, because EWA supplies were scarce, project managers did not curtail exports as much or as long as was requested. *Compare* "Data Assessment Team" call notes (Feb. 1, 2005) (recommending combined exports be reduced to 1500 cfs for one week) (appended hereto as Exhibit 6, without attachments) *with* CVO smelt report (February 2005) (showing much higher combined export levels) (appended as Exhibit 7). Hundreds of delta smelt were taken at the pumps as a result. *Id.* The lawful and proper course of action would have been for the agencies to fully implement the recommended action, and then use non-EWA project water to meet fish needs later in the year if EWA supplies ran short. Instead, the program has been implemented to turn this requirement on its head, and to short fish without any consideration given to imposing uncompensated reductions on project contractors and other water users.

Unfortunately, the agencies have continued this pattern of using limited EWA assets to deny needed fish protection actions. In 2006, as the delta smelt continued its unparalleled decline in abundance, the Delta Smelt Working Group ("DSWG") evaluated a range of protective actions that could be taken to lessen the impacts of water project operations. One action that was evaluated was to address fall (September-December) Delta salinity levels by making releases from upstream reservoirs to increase Delta outflows. The discussions and analyses of this proposed action are reported in DSWG notes for July 10 (see also the notes from August 21, and Sept 26 (appended hereto as Exhibits 8). The DSWG determined that the fall action had a high likelihood of being successfully implemented and that the scientific basis for the action was supported by statistically significant correlations.

Ultimately, the fall action was not taken because it was determined that "the amounts of water needed to demonstrably improve fall habitat quantity/quality [were] unavailable". Based on analyses provided by DWR, the amount of water necessary for maintaining net Delta outflows at 7000 cfs for the September-December period would range from only 170-433 TAF. DSWG notes (Aug. 21, 2006). As a result of not taking this action, Delta outflows steadily declined, falling below 6000 cfs in October, and salinity levels shifted upstream of 80 km, the critical threshold identified by the DSWG for delta smelt habitat quality and subsequent abundance. Delta smelt abundance plummeted to a new record low the following year, indicating that the fisheries agencies were not sufficiently addressing adverse habitat conditions in the Delta and other stressors to ensure the delta smelt's survival and recovery.

Perceived unavailability of water assets was also the reason behind the DSWG rejecting a protective action in winter 2006 intended to set net flows in Old and Middle Rivers to zero cfs to better protect pre-spawning adults. Low San Joaquin River inflows and negative flows on Old and Middle Rivers, concurrent with high export rates, are likely creating hydrodynamic conditions that draw greater numbers of fish to the pumps and correspond to significantly higher

salvage rates. Protection of these biologically valuable spawning adult fish is essential for recovery and sustainability of this at-risk species. Despite the expected benefit of taking this action, it was rejected because "DWR staff have derived estimates of the water costs of the potential actions in the Resources Agency POD Action Matrix and found that the proposed winter action could consume all available environmental water, leaving no assets for spring actions for larvae or juveniles." DSWG notes (Dec. 11, 2006) (appended as Exhibit 9); *see also* DSWG notes (Oct. 10, 2006) ("The Working Group notes that some of the weaknesses of the DFG plan included the potential to exhaust all EWA and B2 assets in winter, leaving nothing in reserve for spring actions") (appended as Exhibit 10).

More recently, NMFS' biologists testified against taking actions to protect delta smelt based on a similar misperception that the total amount of water available to protect imperiled salmonids was limited to a pot of "environmental water" defined by EWA and b(2) assets, and that water used to protect smelt would necessarily deplete the amount of water available to protect salmon. *See* Declaration of Bruce Oppenheim in *NRDC v. Kempthorne* ((June 15, 2007) (appended as Exhibit 11). For example, Mr. Oppenheim explained that "the use of environmental water after VAMP on the San Joaquin River may have consequences later in the year on the Sacramento River." *Id.* at 3. This statement is only true if there is a limited pot of "environmental water" available to meet all fisheries needs – a position that is contrary to numerous requirements of state and federal law.

All of these decisions are based on the incorrect assumption that the amount of water available to protect listed fish species is limited to the assets of the EWA, CVPIA b(2), and other sources of water "dedicated" to the environment. The Bureau has perpetuated this fallacy, asserting that it must meet the needs of CVP contractors before meeting the needs of listed fish species. *See* Declaration of Ronald Milligan in *NRDC v. Kempthorne* (June 21, 2007) ("Reclamation operates New Melones to meet ... project needs of the East Side Division CVP contractors" which leaves "no additional water available for out of basin releases from New Melones Reservoir" even if needed to prevent jeopardy to listed delta smelt) (appended as Exhibit 12); *see also* Transcript of Hearing re Interim Remedies Day 7, *NRDC v. Kempthorne*, Testimony of Ronald Milligan at 1553-54 (Aug. 31, 2007) (explaining that the WOMT rejected some recommendations of the DSWG because of concerns regarding "the ability for the EWA to function in a manner that it could, in essence, pay back the projects for curtailments without impacting operations in the long term sense or allocations to contractors") (appended as Exhibit 13). Similarly, DWR has asserted that it has no additional water available for fish protection, while simultaneously making hundreds of thousands of acre-feet of surplus "Article 21" and "turnback pool" water available to water users and contractors.

This presumed EWA limitation on the amount of water available to protect fish is simply not correct. Numerous courts have made it abundantly clear that the Bureau and DWR must provide sufficient water to protect and recover listed fish species, whether it exceeds the amount of the water the agencies may have earmarked for that purpose or not. *See, e.g., NRDC v. Kempthorne*, Order on Summary Judgment at 61 (May 25, 2007) ("The EWA is simply a means by which the SWP and CVP can obtain water by purchasing it from willing sellers. ... If money is unavailable to fund the EWA, Defendants are nonetheless required to prevent smelt take from exceeding permissible take limits. ... [I]f all else fails, [additional] assets may be brought to bear, which

include 'additional purchased or operational assets, funding to secure additional assets if needed, or project water if funding or assets are unavailable.'") (emphasis in original).

The agencies have turned the EWA on its head and, instead of using it to supplement the resources needed *and required* for fish protection, have used it as an excuse to short the environment and avoid committing those mandatory resources. Unless the agencies make very clear that limited EWA assets cannot be used as a reason not to take an action that would help protect or restore imperiled fish, it should be discontinued.

III. THE ANALYSIS FAILS TO DEMONSTRATE THAT THE EWA HELPS PROTECT AT-RISK FISH SPECIES AND CONTRIBUTE TO THEIR RECOVERY

In addition to the problems discussed above, the DSEIS/EIR fails to provide adequate support for its conclusion that extending the EWA would benefit fish protection and restoration.

First, the document recognizes in several places that a pumping "window" during which EWA assets may be pumped out of the Delta without increasing adverse impacts to listed fish no longer exists. The document explains that "[t]he EWA protects fish at the pumps by reducing pumping when it would help at-risk fish species, then transferring EWA assets across the Delta at other times to repay CVP and SWP users for water lost during pump reductions." DSEIS/EIR at 2-15. The DSEIS/EIR asserts that EWA assets should be used to reduce export pumping to protect fish from the months of December through July. DSEIS/EIR at 2-10 to 2-11. This proposal allows exports to increase to allow delivery of EWA water during the months of August through November. But several imperiled species are vulnerable to take at the pumps during this late summer/fall period. *See id.* at 2-13, 4-15. Moreover, the document notes that the alarming and continuing decline in four pelagic organisms in the Delta have corresponded to a period of "increased exports during June through December." DSEIS/EIR at 4-11. In addition, recent studies have indicated that decreased Delta inflows in late fall and winter may result in reductions in fall habitat quality and eastward movement of X2, which may result in adverse impacts to fish. DSEIS/EIR at 4-13. Thus, it is unclear when a safe pumping window exists for EWA to increase Delta exports. Instead, it is likely that an extended EWA would simply help sustain the current record high levels of exports pumped out of the Delta – export levels that have corresponded to many of the declining fish populations in the Delta. *See, e.g., id.* at B-3 to B-4 (Banks pumping would increase in July, August, and September to convey EWA assets).

Second, the DSEIS/EIR assumes with no support that "[w]hile the fish actions in ... revised biological opinions [that are currently being developed for project operations] are unknown, they would likely be less than with the EWA program." DSEIS/EIR at ES-4. This statement reflects a fundamental misunderstanding of the nature of ESA and CESA requirements, which *mandate* that project operations cause no jeopardy to the existence *or recovery* of listed species, cause no adverse modification of critical habitat for survival *or recovery* of listed species, and that the impacts of project take be minimized and fully mitigated. In addition, Section 7 also imposes an affirmative obligation on federal agencies to "utilize their authorities in furtherance of the purposes of this chapter by carrying out programs for the conservation of endangered species and threatened species listed" under the Act. 16 U.S.C. § 1536(a)(1). A program of "conservation" is one that brings the species to the point of recovery and delisting. *Id.* § 1532(3). In short, the

project agencies are obligated to protect, recover and conserve listed species, whether or not the EWA is in place.

Third, the DSEIS/EIR explicitly bases its analysis of fish actions on the invalidated, reinitiated, and discredited OCAP biological opinions, claiming that it "would be speculative to assume that the fish actions in the BO will be the same as those described by Judge Wanger because the BO will be based on a comprehensive review of all available information and science." DSEIS/EIR at 1-6. In reality, Judge Wanger's decision is based on a more comprehensive and current review of the science regarding the delta smelt than the invalidated BO, which failed even to acknowledge the precipitous decline of the delta smelt in recent years. In addition, the OCAP BO on listed salmonids has been discredited by more than three independent science reviews, including a CALFED review panel, which concluded that the BO was not based on the best available science. The DSEIS/EIR's reliance on the fish actions encompassed in these discredited BOs for the basis of its analysis lacks a reasonable basis.

Fourth, the Bureau has reinitiated consultation with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service on the OCAP. That consultation is ongoing. Until the Bureau meets the requirements of ESA §7 and, among other things, obtains a valid biological opinion at the conclusion of consultation, the ESA § 7(d) prohibition on making any irreversible and irretrievable commitment of resources applies to the Bureau's actions. Regional Director Kirk Rodgers has correctly recognized that reauthorization of the EWA during the pendency of the OCAP consultations would be a violation of §7(d), and has (twice) sworn to a federal court that such authorization would not occur before completion of the new BOs. *See Declaration of Kirk Rodgers (Oct. 18, 2006), Declaration of Kirk Rodgers (July 9, 2007) (appended hereto as Exhibit 14).* Reauthorization of the EWA as proposed in the DSEIS/EIR runs afoul of the 7(d) prohibition and contradicts Mr. Rodgers sworn statements in the pending OCAP lawsuits.

Finally, the DSEIS/EIR concludes that continuation of the EWA "would have a less than significant impact on X2 location during June through December." DSEIS/EIR at ES-9. However, as the document recognizes, emerging science indicates that moving X2 westward of its recent historic location in the fall could have a significant beneficial impact on listed species and their habitat. By reducing outflow in the fall, EWA could have a significantly detrimental impact on the ability of agencies to meet this new threshold.

IV. THE ANALYSIS FAILS TO EVALUATE THE EWA'S FAILURE TO ASSIST IN ECOSYSTEM RESTORATION BEYOND ESA/CESA COMPLIANCE

To date, as discussed above, the EWA has primarily, even exclusively, been operated to limit protective ESA/CESA actions. However, the failure of the EWA extends even farther. The EWA was intended to "provide water for the protection and recovery of fish." CALFED Programmatic ROD at 54. Note that these benefits are not restricted to listed species. The ROD also states that the EWA will "acquire water for ecosystem and species recovery needs." CALFED ROD NCCP Determination at 21. Thus, the EWA was intended as a tool to provide restoration benefits beyond the requirements of ESA/CESA for listed species. These benefits were an important part of the Ecosystem Restoration Program and were the justification for

public funding for the EWA. The document does not analyze the failure of the EWA to provide these anticipated benefits.

Indeed, far from facilitating improved ecosystem health, by limiting ESA/CESA actions and by increasing diversions during the August to November period, the EWA has damaged ecosystem health. This failure is indicated by the fact that non-listed species, such as threadfin shad, are showing the same decline affecting listed species such as the delta smelt and that the Pelagic Organism Decline process has identified "water project operations" as a potential cause of the decline of Delta fishes. See Interagency Ecological Program 2006-2007 Work Plan to Evaluate the Decline of Pelagic Species in the Upper San Francisco Estuary (January 12, 2007) at 4 (appended hereto as Exhibit 15). The document does include one, inadequate mention of these impacts, by concluding that "(t)he entrainment indices for threadfin shad and American shad would be increase." DEIS/EIR at 4-36. Clearly, the EWA has undermined, rather than facilitated, the CALFED ecosystem restoration goal.

The document must be revised to fully and adequately evaluate the failure of the EWA to contribute to fisheries and ecosystem restoration beyond the requirements of ESA/CESA.

V. THE ANALYSIS FAILS TO EVALUATE THE EWA'S FUTURE USEFULNESS TO FACILITATE "REAL TIME" MANAGEMENT

The EWA was also intended to provide "real time diversion management" of Delta flows and the CVP and SWP Delta pumps. CALFED ROD NCCP Determination at 29. Such real time management assumes that the EWA has enough flexibility to modify Delta flows and the management of the projects beyond the relatively fixed prescriptive requirements of ESA/CESA compliance. The document fails to analyze the extent to which the EWA will provide such flexibility to achieve additional ecosystem or protective measures. Unless the management priorities or assets of the EWA are changed dramatically (a change that this document does not anticipate) it appears unlikely that the EWA will have much, if any, flexibility to provide additional protective measures. To the contrary, to the extent that the EWA provides real time management, this flexibility is designed to increase pumping, potentially causing additional impacts to the ecosystem, and designed solely to provide additional water supplies for South of Delta CVP and SWP contractors.

VI. THE FAILURE TO ANALYZE PAST PERFORMANCE UNDERMINES A FUNDAMENTAL PURPOSE OF THE EWA -- TO FACILITATE ADAPTIVE MANAGEMENT

The CALFED ROD was designed with science-based adaptive management as a "central feature." CALFED Programmatic ROD at 4. This document repeats this assertion that "(a)daptive management is a key component of the EWA," and that "(a)daptive management provides a process to change fish actions or asset acquisitions." DSEIS/EIR at page 2-24. The careful evaluation of the past performance of management tools is the defining feature of adaptive management, in order to allow improved, adaptive future management. Indeed, the ROD explicitly commits CALFED agencies to "assess the success of EWA operations." CALFED ROD EWA Operating Principles Agreement at 4. Without such analysis, agencies

cannot "adapt" the management of the program in a manner that builds on past successes and responds to failures. The analysis of past performance of the EWA as an adaptive management tool is critical to the central purpose of this document – extending the EWA into the future. Such analysis is also important to agencies, such as the Delta Vision Task Force, the Bay-Delta Conservation Plan process, the Department of Fish and Game, NOAA Fisheries and the Fish and Wildlife Service, which may consider the merits of incorporating the EWA into future management for the Delta. Finally, such analysis is essential to the legislature and the Administration as they consider the justification for public funding for the EWA. An analysis of the past performance of the EWA will reveal that there is no justification for such continued public funding. As discussed above, the document fails to analyze past performance, a failure that cuts to the core of the purpose of the EWA as an adaptive management tool. The document must be revised to fully and accurately analyze the effectiveness of the EWA as an adaptive management tool.

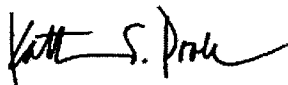
VII. THE DOCUMENT FAILS TO DESCRIBE ACCURATELY THE PROJECT PURPOSE

As discussed above, the document does not adequately analyze the EWA's failure to engage in real time management and adaptive management, to ensure ESA/CESA compliance and to contribute to broader ecosystem restoration. The document also does not include any meaningful provisions to address these failures. The document, however, largely maintains the old, inaccurate description of the purpose of the EWA. DSEIS/EIR at page 2-3. Thus, the document fails to adequately describe the purpose of the project. At the moment, the actual purpose of the EWA appears to be to limit protective actions under ESA and CESA, and to provide additional water supplies to south of Delta water contractors. The document should be revised to include an accurate description of the project.

VIII. CONCLUSION

In light of these many shortcomings in the operation of the EWA and the analysis of the DSEIS/EIR, we urge you to reject the proposal to extend the program beyond the end of 2007. In the alternative, we urge you to withdraw this document and issue a new, adequate draft that addresses the concerns outlined above.

Sincerely,



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